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UNDERGRADUATE AND GRADUATE CATALOG

1992 – 1993



Lebanon Valley College
of Pennsylvania



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1992 – 1993 ACADEMIC CALENDAR

First Semester

August	29	Sat	9 a.m.	Residence halls open for new students
	29	Sat	2 p.m.	Opening Convocation
	30	Sun	Noon	Residence halls open for upperclassmen
	31	Mon	1 – 4 p.m.	Add/drop day
	31	Mon	6:30 p.m.	Evening classes begin
September	1	Tue	8 a.m.	Day classes begin
October	2-4	Fri-Sun		Homecoming Weekend
	9	Fri	5 p.m.	Fall break begins
	13	Tue	6:30 p.m.	Classes resume
	14	Wed	Noon	Mid-term grades due
	16-18	Fri-Sun		Parents Weekend
November	23	Fri	5 p.m.	Change of registration deadline
	25	Wed	3 p.m.	Thanksgiving vacation begins
	30	Mon	8 a.m.	Classes resume
December	11	Fri	5 p.m.	Classes end
	14-18	Mon-Fri		Final examinations
	18	Fri	5 p.m.	Semester ends
	21	Mon	Noon	Final grades due

Second Semester

January	17	Sun	Noon	Residence halls open
	18	Mon	8-10 a.m.	Add/drop day
	18	Mon	1 p.m.	Classes begin (labs only)
	18	Mon	6 p.m.	Evening classes begin
	19	Tue	8 a.m.	Day classes begin
February	23	Tue	11 a.m.	Founders Day
	26	Fri	5 p.m.	Spring vacation begins
March	8	Mon	8 a.m.	Classes resume
	10	Wed	Noon	Mid-term grades due
April	19	Fri	5 p.m.	Change of registration deadline
	7	Wed	9:30 p.m.	Easter vacation begins
	12	Mon	6:30 p.m.	Classes resume
May	6	Thu	9:30 p.m.	Classes end
	8-13	Sat-Thu		Final examinations
	13	Thu	9:30 p.m.	Semester ends
	14	Fri	Noon	Senior grades due
	15	Sat	9 a.m.	Baccalaureate service
	15	Sat	11 a.m.	124th Commencement
	21	Fri	Noon	All final grades due

THE MISSION OF THE COLLEGE

The Mission of Lebanon Valley College arises directly from its origins as a church related college. We emphasize that fact by maintaining affiliation with the United Methodist Church and by affirming the Judeo-Christian tradition as the perspective for our policies.

The best way to understand the mission of Lebanon Valley College is to focus on what it is we hope for our students. We want our students:

- to develop a genuine concern for cooperative living and community service;
- to attain a heightened sense of moral and spiritual values through a deepened awareness of how people have thought of themselves in relation to nature, to society, and to God;
- to appreciate the close and unmistakable relationship among rational thought, creative imagination, and moral commitment; and
- to deal candidly and intelligently with the past, the present, and the future and their interrelationship.

This assertion of hope for our students possesses three distinctive characteristics.

- (1) While this is not a list of priorities in rank order, neither is it mere coincidence that cooperation with and service to others comes first.
- (2) Moral commitment is not affirmed as one of a laundry list of qualities nor does it appear as an afterthought. Rather it is inherent or explicit in all the desired outcomes.
- (3) The broad description of our program which these objectives implies identifies qualities which we attempt to achieve through both general education and major study, but the stress throughout is on interrelationships, not on knowledge in isolation. We want our students to be as knowledgeable, as aesthetically sensitive, as skillful as possible, but we want more than that for them.

The motto of the college, taken from the Gospel of John, is "You shall know the truth and the truth shall make you free." But our aim is not merely to free our students from ignorance, superstition, prejudice, narrowness of vision. It is also to free them for a life of service to others. That purpose we affirm in the concept of leadership which gives focus to the ideals of education by reiterating the central value of the liberal arts tradition in a democratic society: to prepare people to make a difference, to contribute significantly to their various communities.

UNDERGRADUATE INFORMATION

Admission For Full Time Students

High School Preparation

All admission candidates should have completed 16 credit units and graduated from an accredited secondary school, or present an equivalency certificate (G.E.D.). Of the 16 units, 4 should be in English, 2 in foreign language, 2 in mathematics, 1 in science and 1 in social studies.

Application Procedure

A candidate for admission to Lebanon Valley College must submit a completed application form with the required application fee, Scholastic Aptitude or American College Test results and an official transcript of high school grades. Students planning to transfer to Lebanon Valley must submit official transcripts of completed college or university work. Lebanon Valley College does not require the College Board Achievement Test.

All candidates are encouraged to visit campus for a personal interview. Applicants for admission into music, music education or sound recording technology programs are required to audition on campus; audition applications are available from the Admission Office. For further information contact:

Admission Office
Lebanon Valley College
101 North College Avenue
Annville, PA 17003-0501
Phone: (717) 867-6181 or (800) 445-6181

Student Finances

Payment for tuition, room, board, and other charges is due by a published deadline prior to the beginning of each semester. Students failing to meet this deadline will be required to make special arrangements with the Business Office before their course registrations will be processed. Questions about student finances should be addressed to the Business Office.

Refund Policy

Students withdrawing from a course, or the school, will receive a refund prorated according to the following schedule:

<u>Time Period</u>	<u>Refund</u>
During the first week of classes	100%
During the second week of classes	80%
During the third week of classes	50%
After the third week of classes	0%

Summer School—	
During the first week of classes	100%
During the second week of classes	50%
After the second week of classes	0%

Part-time and continuing education students should consult the refund schedule published by the Continuing Education Office.

No refund is allowed on room charges.

Deferred Payment

Lebanon Valley College offers a deferred payment plan for those families who, after exploring other options, are unable to meet the college's prepayment requirements. Two agents have been appointed to process deferred payment applications:

Academic Management Services, Inc.

50 Vision Boulevard
P.O. Box 14608
East Providence, RI 02914-0608
Phone: 1-800-556-6684

IPP/HES Trust

c/o Municipal Services Dept.
Dauphin Deposit Bank and Trust Co.
P.O. Box 2937
Harrisburg, PA 17105
Phone: 1-800-422-0010

The college has no financial interest in either of these plans and offers them as a convenience to students and parents. Students who are receiving monthly Social Security or Veteran's Education Benefits may defer the amount covered by these benefits.

Continuing Education Office

The Continuing Education Office offers credit programs on four levels: certificate, associate, baccalaureate, and diploma. Certificates are starter programs that approximate the beginning of a four-year college experience, ideal spring-boards from which to go on for an associate or bachelor's degree. Diploma programs are intended for persons who have already been awarded a bachelor's degree in one discipline and desire to study another discipline in some depth and breadth.

A second bachelor's degree may be awarded to adult students who already have received a bachelor of arts or sciences from the college or another accredited college or university. In such cases, students only must complete the major requirements for the second degree or a minimum of thirty credits, whichever is greater.

Courses in the Continuing Education Office are offered on the Annville campus during evenings, weekend and summer sessions. Evening programs are also available at the Lancaster Center. The Continuing Education Office publishes course schedules for the fall, spring and summer sessions. To obtain copies of course schedules or get detailed information on all academic programs for adults call 717-867-6213 in Annville or 717-399-4419 in



The continuing education program offers a variety of courses on both the Annville campus and at our Lancaster Center.

Lancaster or write Continuing Education Office, Lebanon Valley College, Annville, PA 17003-0501.

A candidate for admission to any of Lebanon Valley College's Continuing Education degree programs must submit a completed application form with the required application fee. An official high school transcript is required if students have less than 24 semester hours of transferable college credits. Students planning to transfer to Lebanon Valley must submit official transcripts of any completed college or university courses. Official transcripts relating to military or business courses also may prove to be useful. Although students may begin taking classes before they have been accepted, they must speak with a counselor before registering for the courses. To arrange an admission interview with a counselor call 717-867-6213 in Annville or 717-399-4419 in Lancaster. Decisions on all adult student applications usually are made within one month after the last required transcript is received.

UNDERGRADUATE ACADEMIC REGULATIONS AND PROCEDURES

Attendance at Lebanon Valley College is a privilege not a right. To provide the necessary atmosphere in which teaching and learning can occur, the college expects that the conduct of all campus citizens will conform to accepted standards. The college has the right to require the withdrawal of any student whose actions are inimical to the purposes of the institution. The following academic regulations are announcements and do not constitute a contract between the student and the college. The college reserves the right to change these regulations and procedures as it deems necessary for the accomplishment of its purposes, but wherever possible, a student will proceed to graduation under the regulations in effect at the time of his/her entrance at the college.

Degrees

Baccalaureate Degrees

Lebanon Valley College confers six baccalaureate degrees. Bachelor of Arts for students completing requirements in the following major programs: American studies, economics, English, foreign language, French, German, history, music, philosophy, political science, psychology, religion, sociology, Spanish and certain individualized majors.

Bachelor of Science for students completing requirements in the following major programs: accounting, actuarial science, health care management, biochemistry, biology, chemistry, computer information systems, computer science, cooperative engineering, cooperative forestry, economics, elementary education, general studies, hotel management, international business, management, mathematics, music education, physics, psychobiology, and certain individualized majors. Bachelor of Science in Chemistry, Bachelor of Science in Medical Technology, and Bachelor of Music: Emphasis in Sound Recording Technology for students completing requirements for the appropriate major program.

Associate Degrees

Through the Continuing Education Office students may earn the Associate of Science degree in accounting, general studies or management, or the Associate of Arts degree in general studies.

Privacy of Student Records

In accordance with the Family Rights and Privacy Act of 1974 the college releases no student education records without written consent and request of the student, or as prescribed by law.

A student has the right to inspect his or her educational records maintained by the college. It is the student's responsibility to contact the appropriate office of the college to make the necessary arrangements.

The college makes public such directory information as name, address, telephone, date of birth, major field of study, degrees and awards received, previous schools attended, participation in activities, and athletic information.

Credit Hours

A credit hour is the unit to measure academic progress. Each course has a credit designation approximately equal to the number of hours to be spent in class each week. A course requiring three hours of class attendance each week will carry three credit hours. Credit for laboratories is generally awarded at one-half the regular rate.

Graduation Requirements

Candidates for a baccalaureate degree must obtain 122 credit hours, except for continuing education students who are exempt from the physical education requirement and must obtain 120 credit hours. Credit hours are accumulated in three separate categories: general education requirements, major requirements, and electives.

Candidates for an associate's degree must accumulate at least 60 credit hours including the course work appropriate to their major program. Fifteen of the last eighteen credit hours toward the degree must be in residence.

Candidates for a degree must obtain a cumulative grade point average of 2.00 and a major grade point average of 2.00

The general education program is that part of the curriculum that is shared by all students in all majors. The nine areas of required courses reflect 45–49 credit hours.

The major programs each require at least 24 credit hours of course work.

Electives are those courses selected by the student that reflect neither major nor general education requirements.

Candidates for degrees must also take in residence 30 credit hours of the 36 taken immediately prior to graduation. Course work taken in all of the college's programs qualify as work done in residence.

Advising Program

Each student has a faculty adviser whose role is to counsel about registration procedures, course selections, academic requirement, and regulations. The student is required to obtain the adviser's counsel and approval before registration, withdrawal, election of pass/fail option, and/or change in credit/audit status.

ACADEMIC PROCEDURES

Arrangement of Schedules

Each student arranges a semester program of courses in consultation with, and by approval of, his or her faculty adviser. Students already in attendance do this during registration periods. New students accomplish this on orientation days.

Limit of Hours

To be classified as full time, a student must take at least 12 credit hours in a semester. Seventeen credit hours is the maximum permitted without approval from the student's adviser and permission of the registrar. Audited courses are counted in determining the course load, but physical education and music organizations are not. To be permitted to take more than 17 credits the student should have a cumulative grade point average of 3.0 or higher, or be enrolled in the Honors Program, or be a senior. Students shall pay the prevailing tuition rate for each credit hour beyond 17 (not counting physical education and music organizations).

Class Standing

Students are classified academically at the beginning of each year. Membership in the sophomore, junior or senior classes is granted to students who have earned a minimum of 28, 56, or 84 credit hours respectively.

Transfer Credit

A student applying for advanced standing after having attended another accredited institution shall send an official transcript to the dean of admission. If requested, the student must provide copies of the appropriate catalogs for the years of attendance at the other institution or institutions.

Credits are accepted for transfer provided the grades are C- (1.67) or better and the work is equivalent or similar to work offered at Lebanon Valley College. Grades thus transferred count for credit hours only, not for quality points.

A candidate for admission holding an associate degree from a regionally accredited college can be admitted with full acceptance of course work at the previously attended institution. Course work in the major field, however, for which the applicant has received a D shall not be counted toward fulfilling the major requirement.

Because Lebanon Valley College is a liberal arts institution, consideration of full acceptance of the associate degree will be granted with the understanding that the candidate has followed a basic course of study compatible with the curriculum and academic programs of the college

and has been enrolled in a transfer program. A total of 60 credits will be accepted for an associate degree and 57 credits for a diploma program. A maximum of 90 credit hours will be accepted toward a baccalaureate degree.

In most instances the applicant may be expected to complete the baccalaureate degree within two years. However, when the requirements of a particular major field or the nature of the previous study demand additional work beyond two years, the applicant will normally be notified at the time of admission.

Discontinuance of Courses

The college reserves the right to withdraw or discontinue any course.

Registration and Preregistration

Students are required to register for courses on designated days of each semester. Students who register later than the designated times shall be charged a fee. Students desiring to register later than one week after the opening of the semester will be admitted only by special permission of the registrar.

On entering Lebanon Valley College students indicate that they are open or that they have a particular intended major. Students may make a formal declaration of major during the second semester of their freshmen year, and must make a formal declaration by the time they have completed 60 credit hours.

Change of Registration

Change of registration, including pass/fail elections, changes of course hours credit, changes from credit to audit and vice versa, must be approved by signature of the adviser. In most instances, registration for a course shall not be permitted after the course has been in session for one full week. With the permission of the adviser, a student may withdraw from a course at any time through the last day of semester classes (see grading policy). A fee is charged for every change of course made at the student's request after Add/Drop Day.

Auditing Courses

Students may register to audit courses with the approval of their academic adviser. Audited courses are counted in considering the course load relative to the limit of hours. No grade or credit is given for an audited course, but the registrar will record the audit on the transcript if the student attends regularly. A change of registration from credit to audit or from audit to credit must be accomplished by the end of the eighth week of semester classes.

Pass/Fail

After attaining sophomore standing (28 credit hours) a student may elect to take up to two courses per semester and one per summer session on pass/fail basis; however, only six such courses can be counted toward graduation requirements. No courses taken pass/fail may be used to meet either general education, major requirements, or pre- or co-requisites for classes. A student may select or cancel a pass/fail registration any time during the first eight weeks of a semester. Passing with honors will be designated by the grade PH indicating that a grade of B+ or higher was earned.

Repetition of Courses

A student may repeat as often as desired, for a higher grade, a previously taken course, subject to the following provisions: the course must have been taken in courses staffed by the college at the Annville campus and/or the Lancaster center or Pennsylvania School of Art & Design in Lancaster. Semester hours credit are given only once. The grade received each time taken is computed in the semester grade point average. Each semester grade report will show hours credit each time passed, but the total hours toward a degree will be equal only to the semester hours credit for the course. For a course previously passed P/F, the grade received in the subsequent registration for regular grade is the "higher grade." Each grade received remains on the permanent record and a notation is made thereon that the course has been repeated.

Concurrent Courses

A student enrolled for a degree at Lebanon Valley College may not carry courses concurrently at any other institution without prior consent of his or her adviser and the registrar.

External Summer Courses

A student registered at Lebanon Valley College may not obtain credit for the courses taken during the summer in another college, unless such courses have prior approval of his or her adviser and the registrar.

Attendance Policy

Each student is responsible for knowing and meeting all requirements for each course, including regular class attendance. At the opening of each semester the instructors shall clearly inform students of class attendance regulations. Violations of those regulations shall make the student liable to receive a grade of F in the course. Upon the recommendation of the instructor and the approval of the registrar a grade of W will be assigned during the eight weeks of the semester, and an F will be assigned after that date.

Excused absences do not absolve students from the necessity of fulfilling all course requirements.

In-Absentia

The college treats students in domestic or foreign study programs and in the Washington Semester Program as students-in-absentia. Any student who studies for a semester or academic year at another institution but with the intent of returning to the college is considered a matriculated student. A student desiring in-absentia status should complete the form in the registrar's office and secure the approval of the adviser, the department chairperson and the associate dean of the college. Students will receive information on registration and room sign-up after they notify the registrar of their address abroad or in the United States.

Leave of Absence

For reasons of health or in other compelling circumstances students may request a voluntary leave from the college for one or two semesters. A student desiring such a leave should complete the form available from the registrar and secure the approval of the dean of the college. Students on leave are regarded as continuing students and retain their status for registration or room sign-up. Students on leave will receive information on those procedures and will be asked to verify their return. The college reserves the right to require a leave of absence for medical reasons at any time it is deemed reasonably necessary to protect the student, other students, members of the college community, or the interests of the college itself. Before a student returns from a medical leave of absence, a clearance interview with one of the counseling psychologists, the dean of students or the dean of the college as well as additional documentation may be required.

Withdrawal from College and Readmission

To withdraw from college a student must complete an official withdrawal form obtained from the registrar. Continuing education students must complete an official withdrawal form obtained from the director of continuing education. Readmission of a student requires written permission from the dean of the college.

Advanced Placement

Advanced placement with credit for appropriate courses shall be granted to entering students who make scores of 4 or 5 on College Board Advanced Placement examinations. For scores of 3, final determination is made by the appropriate department. Advanced placement without credit may be granted on the basis of the Achievement Tests of the College Board examinations or such other proficiency tests as may be determined by the registrar and by the chairperson of the department.

Second Bachelor's Degrees

A person who has earned a bachelor's degree from Lebanon Valley College or another

accredited college or university may earn a second bachelor's degree by meeting the following requirements:

1. A minimum of 30 additional undergraduate credits must be completed successfully at Lebanon Valley.
2. All graduation requirements for the major of the second degree must be met satisfactorily.
3. Course work completed successfully as part of the first degree program may be used to satisfy the graduation requirements of the second major.
4. No course already taken in the first degree program may be repeated in the second degree program.
5. Teacher Certification credits may not be counted toward a second degree.
6. Graduates from other accredited colleges or universities shall not be required to meet any Lebanon Valley general education requirements.
7. No courses in the second degree program may be met satisfactorily through such non-traditional means as challenge examinations, CLEP, or credit for life experience.
8. No internships may be used to satisfy the 30 credit rule, unless such internship is required in the second degree program.
9. No courses in the second degree program may be taken Pass/Fail.

Undergraduate Non Traditional Credit

Lebanon Valley College recognizes the ability of highly motivated students to master specific areas of study on their own initiative and provides programs to allow these students the opportunity to gain credit. Any matriculated student may earn a maximum of 30 credits toward a bachelor's degree or a maximum of 15 credits toward an associate's degree through non-traditional means (experiential credit, advanced placement, CLEP, challenge exams).

Challenge Exams Policy

Only the courses listed in the college curriculum may be challenged for credit. Full-time students should request challenge examinations through their academic advisers. Part-time students and those students enrolled through the continuing education program should make application of challenge exams through the Continuing Education Office. All requests must be approved by the registrar and the chairperson of the department in which the course is listed.

Challenge exams are considered to be comprehensive examinations in the subject area and are graded Pass/Fail. The grading criteria for passing a challenge exam shall be determined by each department. There is a fee for each challenge examination. This fee is for preparation and grading of the examination and is charged without regard to the test results. Challenge exams may not be taken by students who have received any grade in a course equivalent to or more advanced than the course for which the student is requesting credit by examination. Challenge exams may not be used for the purpose of acquiring credit for a course previously failed. Practicums, internships, seminars, research courses, independent study, and courses with required laboratory components are not subject to credit by examination.

CLEP (College Level Examination Program) Policy

Credit shall be granted to those students who score well on CLEP examinations that are approved by the college. To receive credit, a student must score above the 50th percentile on the objective section and above a C, as determined by the appropriate academic department, on the essay section.

A maximum of 6 credits shall be awarded for each examination; of these credits, only 3 may be applied to the general education requirements in the appropriate area. Credit shall be granted only to students who have matriculated at Lebanon Valley College. Normally, requests for CLEP credit must be approved by the registrar before the student has completed 30 credits.

Credit for Life Experience Policy

Lebanon Valley College provides for the awarding of undergraduate academic credit for knowledge acquired through non-academic experience in subjects in the college curriculum. The experience should have a direct relation to the material taught in a course in the college curriculum and should extend over a sufficient period to provide substantive knowledge in the relevant area. Matriculated students who believe they qualify for such credit may petition the appropriate department through their academic advisers. Students enrolled in the Continuing Education program must petition through the Continuing Education Office. This petition must:

- (1) detail the relevant experience in question
- (2) provide appropriate supporting evidence
- (3) note the equivalent college course by department and number
- (4) state the number of credit hours sought.

The appropriate department will consult with the academic adviser or the Continuing Education Office to determine the best means (interview, examination, portfolio, etc.) for evaluating the experience.

Approval of experiential credit for full-time students must be made in writing over the signatures of the academic adviser, the appropriate department chairperson, and the dean of the college. Approval of experiential credit for students enrolled through the continuing education program must be made in writing over the signatures of the director of continuing education, the appropriate department chairperson, and the dean of the college.

Experiential credit cannot exceed six credit hours in one academic year and cannot exceed a maximum of twelve credit hours in the degree program.

Grading Systems and Grade Point Averages

Student work is graded A (distinguished performance), B (superior work), C (satisfactory achievement), D (requirements and standards met a minimum level), F (course requirements not met). For each credit hour in a course, students receive the following quality points:

A	4.00	C	2.00
A-	3.67	C-	1.67
B+	3.33	D+	1.33
B	3.00	D	1.00
B-	2.67	D-	.67
C+	2.33	F	.00

F carries no credit or quality points, but grades of F are used in calculating the grade point averages. The cumulative grade point average is calculated by dividing the quality points by the credit hours completed.

Candidates for a degree must obtain a cumulative grade point average of 2.00, and a major grade point average of 2.00. Only grades in courses taken at Lebanon Valley College, the Lebanon Valley College in Cologne Program, and the Washington Semester Program are used to determine grade point averages.

Continuing education degree candidates admitted before July 1, 1989 must meet graduation requirements by earning a cumulative grade point average of 1.75. All students and continuing education candidates admitted after July 1, 1989 must meet graduation requirements of earning a grade point average of 2.00. All students must have a 2.00 grade point average in their major, any second major, and any minor.

A student may not take a course that has a prerequisite course he/she has failed.

In addition to the above grades, the symbols I, W, WP, and WF are used. I indicates that the work is incomplete (certain required work postponed by the student for substantial reason with the prior consent of the instructor), but otherwise satisfactory. This work must be completed within the first eight weeks of the next semester, or the I will be changed to an F. Appeals for an extension of time must be presented to the registrar by the first week of the next semester. W indicates withdrawal from a course through the eighth week of semester classes. In case of withdrawal from a course thereafter through the last day of semester classes, the symbol WP is used if the work has been satisfactory and WF if unsatisfactory. The grade of WF is calculated as an F in the grade point averages. For physical education a grade of either S (satisfactory) or U (unsatisfactory) is recorded.

Once a grade has been recorded it may not be changed without the approval of the instructor and the registrar. Students who feel the grade may be inaccurate should contact the instructor at once, but in no case later than the end of the semester following the course in question.

Academic and Graduation Honors

The Dean's List

Students achieving a 3.40 or higher grade point average while carrying at least 12 credit hours for grade shall be named to the Dean's List at the end of each semester.

Continuing education students shall be named to the Continuing Education Dean's List by meeting the following terms:

- (1) must be matriculated in certificate, degree or teacher certification programs
- (2) must be enrolled for at least 6 credit hours
- (3) must achieve a minimum semester grade point average of 3.40

Graduation Honors

After completing a minimum of 60 credit hours of residence work a student may qualify for graduation honors. The honors to be conferred are Summa Cum Laude for grade point averages of 3.75 – 4.0, Magna Cum Laude for grade point averages of 3.60 – 3.74, and Cum Laude for grade point averages of 3.40 – 3.59.

Departmental Honors

All major programs provide the opportunity for departmental honors work during the junior and senior years. For specific information, interested students should contact the appropriate department chairperson. Generally, departmental honors consist of a reading and/or research project producing a thesis or essay. This project is undertaken on a subject of the student's own choosing under the supervision of a faculty adviser. Opportunity also exists to do creative work. A maximum of 9 hours credit may be earned in departmental honors.

Phi Alpha Epsilon

Students graduating with grade point averages of 3.50 or higher are eligible for induction into Phi Alpha Epsilon, provided they have earned a minimum of 60 credit hours of residence work.

Academic Dishonesty

Students are expected to uphold the principles of academic honesty. Academic dishonesty shall not be tolerated.

For the first academic dishonesty offense, no action shall be taken beyond failure from the course, at the option of the faculty member. A letter of warning shall be sent to the student by the dean of the college, explaining the policy regarding further offenses, and the right of appeal.

For a second offense, failure in the course is mandatory, and the dean shall so inform the

faculty member(s) involved. Additionally, the dean of the college has the authority to take further action, up to and including expulsion from the college.

For a third offense, failure in the course and expulsion from the college are mandatory.

The dean of the college has the authority to make a determination of whether actions or reasonable suspicions of actions by a student constitute academic dishonesty "offenses" as above.

Information related to academic dishonesty offenses must be passed by the faculty member to the dean of the college. The dean shall retain the information for at least as long as the student involved is enrolled at the college. Information and evidence concerning academic dishonesty are the property of the college.

All actions against a student for academic dishonesty offenses can be appealed to the dean of the college, who will serve as final arbiter.

Probation and Suspension

Students can be placed on academic probation, suspended or dismissed if their academic standing fails to come up to the grade point average shown in the following table:

Semester <u>Hours</u>	<u>Probation</u>	Suspension or <u>Dismissal</u>
1 – 18	1.50	
19 – 36	1.60	1.50 cumulative
37 – 54	1.70	
55 – 72	1.80	1.70 cumulative
73 – 90	1.90	
91 or more	2.00	1.90 cumulative

A student placed on academic probation is notified of such status by the dean of the college and informed of the college regulations governing probationers. Students on probation are expected to regulate their work and their time in a most determined effort to bring their performances up to the required standard. A student on probation who desires to begin a new activity or continue in an activity already begun, shall submit an appeal to the dean of the college. After consultation with the student's major adviser and parents, the dean of the college will render a binding decision.

A student suspended for academic reasons normally is not eligible for reinstatement for one semester. A student seeking reinstatement must petition in writing to the dean of the college.

A student twice suspended shall be considered for readmission only after completing appropriate academic work at an accredited college.

Veterans' Services

Veterans who are eligible to receive educational benefits must report their enrollment to the registrar after they register for each semester or summer session. The registrar will then submit certification to the Veterans Administration.

Veterans who are attending Lebanon Valley College for the first time must complete the appropriate forms in the registrar's office before certification will be sent to the Veteran Administration.

Veterans with questions about the college or their status with the college should contact the registrar.

Servicemember's Opportunity Colleges

Lebanon Valley College has been designated as an institutional member of Servicemember's Opportunity Colleges (SOC), a group of over 400 colleges providing post secondary education to members throughout the world. As an SOC member, Lebanon Valley College recognizes the unique nature of the military lifestyle and has committed itself to easing the transfer of relevant course credits, providing flexible residency requirements, and crediting learning from appropriate military training and experiences.

Teacher Certification for Non-Matriculated Students

Lebanon Valley College offers teacher certification to a variety of special students: students with degrees from other colleges, or teachers seeking certification in other fields, or Lebanon Valley College alumni seeking certification for the first time. All students must present official transcripts of college work or their previous teacher certification to the registrar. The Education Department, the registrar and the appropriate academic department shall evaluate the record and recommend the appropriate course of action. A fee shall be charged for this service.

Off-Campus Programs

The college offers several off-campus experiences for which students may register and receive credit.

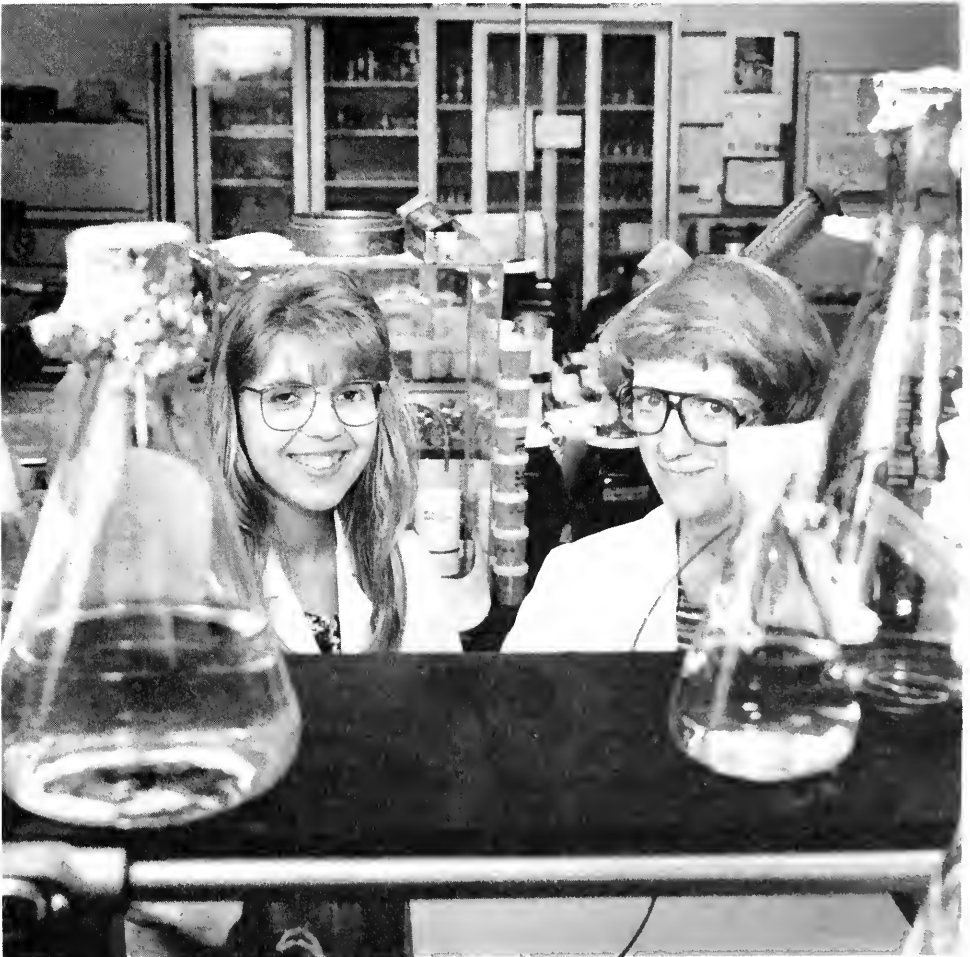
Study Abroad

Students have opportunity for study abroad through the college's membership in the International Student Exchange Program, which consists of a network of more than 150 colleges and universities in 24 countries, and through the Lebanon Valley College in Cologne Program. Details are available from the associate academic dean. The college also assists students in locating and gaining admission to other foreign study programs; however participation in programs other than the International Student Exchange Program may affect

the level of financial aid provided. In all cases, the proposed course of study must be approved by the appropriate department. See In–Absentia on page 12.

Washington Semester Program

Juniors and seniors in any major field, who have at least a 2.5 grade point average and have had basic courses in American national government, are eligible to participate in this program with approval of their department chairperson. This program is offered in cooperation with The American University in Washington, DC. Information is available from the chairperson of the Department of Political Science and Economics. See In–Absentia on page 12.



Off-campus programs offer students the opportunity to experience “real-life” situations.

UNDERGRADUATE ACADEMIC PROGRAMS

General Education Program and Requirements

Through the General Education Program, the college most directly expresses its commitment to the ideal of liberal education that underlies its statement of purpose. The program consists of three elements: leadership studies, the core, and distributive requirements. The program's chief goals are to provide the essential foundation for the growth of knowledge and for making the connections between experience and learning. All degree students must complete the program outlined below.

Leadership Studies

In keeping with its commitment to fostering an understanding and enhancing the development of leadership the college requires all students to complete successfully a course in this area.

Area 1. Leadership Studies. 3 credit hours. To introduce all students to theories of leadership and to analyze practical applications of those theories. LSP 100 or LSP 111 (for Leadership Award students and other students as approved by the director of Leadership Programs).

Core

The college requires that all students successfully complete the following interdisciplinary courses:

GED 120. The Western Experience: Our Cultural Heritage. A study of how life in the late twentieth century has been influenced by historical developments in Europe and America, including the growth of science, the rise of nation states, social classes and values, and changing views of the world. 3 credits. {Cross-listed as History 102.}

GED 140. Human Culture and Behavior. Culture as a context of human behavior. The nature and definition of culture. The biological and social sources of culture. Culture, language, personality. The impact of culture on social life and on the individual; examples from Western and non-Western sources. 3 credits.

GED 160. The Aesthetic Experience. The artist's achievement. Interrelationships among the arts. The creative process. Questions of form versus content. Art as the product of a specific socio-historical context. 3 credits.

Distributive Requirements

By requiring students to study a variety of academic areas the distribution requirement encourages each student to acquire an understanding of the broad spectrum of ideas and

patterns of thinking that constitute the liberal arts. No course taken pass/fail or required for the first major may be used to meet the distribution requirement. Mathematics and computer science majors are exempt from the requirements of Area 3.

Area 2. Communications. 6 credit hours. To develop effective speaking and writing skills. Two sequential courses in English composition. ENG 111, 112, or HON 201.

Area 3. Mathematics and Computers. 3–6 credit hours. To understand mathematics as a way of thinking and as a tool for problem solving. One integrated mathematics/computer course (MAS 100) or one mathematics course and one computer course. Eligible courses are ACT/ECN/MGT 233, CSC 125 or 170 plus one from MAS 111, 150, 161, 170. MAS 100 fulfills entire requirement.

Area 4. Foreign Language. 6 credit hours. To gain perspective on the role of language in human affairs. Two sequential courses in a foreign language (or exemption by examination). All foreign language courses numbered 101, 102, 201, 202 are eligible.

Area 5. Historical and Cultural Contexts. 6 credit hours. To establish and explore the nature of human society. GED 120 and GED 140; or HON 202.

Area 6. Science and Technology. 7 – 8 credit hours. To discover scientific principles and discuss related moral and ethical questions. Two laboratory courses in biology, chemistry, physics or psychology (the two courses need not be in the same science). Eligible courses are BIO 101, 102, 103, 111, 112, CHM 100, 111, 112, 113, 114, PHY 100, 103, 104, 111, 112, or PSY 120.

Area 7. Aesthetic Experience. 6 credit hours. To learn to appreciate works of art and gain insight into creative process. GED 160 and one course in art, music or literature. Eligible courses are ART 110, 201, 203, ENG 200, 227, 228, FRN 311, 312, GMN 311, 312, MSC 100, 341, 342, SPA 311, 312; or HON 204.

Area 8. Values, Persons and World Views. 6 credit hours. To explore the relationship between world views and value systems. Two courses in religion or philosophy (the two courses need not be in the same discipline). PHL 110, 160, 230, 240, REL 110, 115, 116, 120, 160; or HON 203.

Area 9. Physical Activity. 2 credit hours. To develop an interest in physical activity as a part of total fitness. Two courses in physical education involving conditioning or life-long sports. Any physical education course is eligible.

The Leadership Program

Leadership studies are a vital component of the education of every Lebanon Valley College student. In addition to the priority on leadership in various disciplinary courses, an interdis-

disciplinary course involving the study of leadership theories and processes (LSP 100 or LSP 111) is required as part of the General Education program for all students. Beyond these basics, Lebanon Valley offers three advanced courses in leadership studies.

The Leadership Studies Scholar Program provides a thorough grounding in the fundamentals of leadership, in both theory and application. This program consists of a four-course sequence spread over the four years of undergraduate study. None of these courses may be taken Pass/Fail.

The Leadership Studies Scholar Program is available to all students in the college who wish to continue their study of leadership, both to broaden their understanding of leadership theories and processes and to increase their self-awareness in their roles as leaders and followers.

The Leadership Studies Scholar Program seeks to achieve the following outcomes for all participating students:

1. An understanding of the theories and models of leadership.
2. Knowledge of how people in diverse social and cultural contexts have assumed leadership roles and performed as leaders.
3. A critical awareness of how ethics and values help determine whether responsible leadership or mere manipulation (the irresponsible use of power and authority) will occur.
4. Increased self-awareness and understanding of how a person's behavior affect relationships in leader/follower situations.
5. Awareness and appreciation of the responsibilities and difficulties inherent in leadership.
6. Enhanced potential to assume a role as leader or responsible follower within a group, organization or community.

Leadership Studies Scholar Program

LSP 100 or LSP 111; Ethics: REL 160, PHL 160, or HON 202; LSP 350 and LSP 400.

Leadership Studies Courses

100, 111. Theories and Applications of Leadership Processes. Theories and concepts of leadership, power and authority. Analysis of their practical applications. Specific areas to be covered include group dynamics, communication skills, conflict resolution, motivation, decision-making, values clarification, self-assessment, and ethics. Prerequisite: For LSP 111 permission of instructor. 3 credits.

330. Ethical Issues and Values in Leadership. A critical examination of the ethical and valuational questions that reside at the core of both leadership and leadership theories. Prerequisite: LSP 100 or 111. 3 credits.

350. Advanced Leadership Studies. Models and theories of leadership as exemplified in selected case studies. Analysis of leadership in other cultures and assessment of the student's own leadership style are also included. Prerequisite: LSP 100 or 111; PHL 160 or REL 160. 3 credits.

400. Leadership Internship. Students select a worksite and study the organizational leadership for eight hours a week per three credit hours. Internship can be paid or unpaid. Prerequisite: LSP 350 and 2.75 GPA. 3–12 credits.

Faculty:

Daniel B. McKinley, director of leadership studies.

Assistant professor of leadership studies.

M.A., University of Maryland. M.A.L.S., Wesleyan University.

Mr. McKinley maintains an interest in small group development and offers leadership labs for communication skills development.

Leon E. Markowicz, professor of leadership studies.

Ph.D., University of Pennsylvania.

He teaches courses in the Leadership Studies Program and assists in developing and coordinating leadership internships. He serves local business as a communications consultant. Dr. Markowicz is a Fellow of the Pennsylvania Writing Project and is active in the Lancaster-Lebanon Writing Council.

Honors Program

The honors program is designed for superior students who are keenly motivated to expand their intellectual horizons, develop their originality and curiosity, and challenge their intellectual abilities.

The program seeks to sharpen critical and analytical thinking, develop verbal and written expression, encourage intellectual independence, and foster sensitive and informed investigation of human values.

To achieve these goals, the program offers a demanding, stimulating and integrated alternative to a portion of the general requirements of the college.

Entering students and first semester freshmen are selected on the basis of interviews and scholastic records.

Requirements: Students graduate with college honors after they have completed the honors program with a 3.0 grade point average or better overall and in the honors courses.

Honors Courses

201. Honors Communication. Writing and speaking clear, grammatical and articulate English. Listening and reading well. Searching information sources and applying those sources ethically. Analyzing and drawing conclusions. 3 credits.

202. The Individual and Society. An investigation into the structures of society, their origins, and their impact upon human values. Emphasis on the interaction of the individual and the socio-cultural environment. Evaluation of the approaches of the various social sciences. 3 credits.

203. Human Existence and Transcendence. A close examination of questions and issues pertaining to human existence and the ways in which humankind has attempted, religiously and philosophically, to rise above the conditions of human existence. This course seeks to describe and examine the commonalities and differences between religion and philosophy as each discipline addresses itself to existence and transcendence. 3 credits.

204. Human Creativity. A study of the major forms of literature, music, and plastic art, designed to acquaint students with functions, values and aesthetic and cultural contexts of art, as well as to enhance their response to art works. 3 credits.

Honors Seminar

The honors seminar is an intensive study of topics offered for junior and senior honors students. The honors students choose the topic for the seminar, help select the instructor and assist in the design of the seminar with the instructor. Each participant in the honors program shall complete one honors seminar.

Honors Independent Study

An independent study project, the capstone of the honors program, provides the opportunity to carry out an extensive academic study of the student's own design. The project, overseen by a faculty member, must be approved by the honors director. When acceptable to an academic department such independent study may serve as the basis for departmental honors. Upon completion, the project will be presented publicly. 3 credits.

Graduation Requirements

In addition to the honors program and major requirements, honors students take: one leadership course; two (2) one-semester courses in science; two (2) sequential courses in a foreign language or exemption by examination or one foreign language course at the 300 level; a one-semester integrated course in mathematics and computer science (MAS 100) or one course in mathematics and one (1) course in computer science; GED 160; one (1) philosophy/religion course; either GED 120 or GED 140; and two (2) courses in physical education.

Cooperative Programs

Allied Health Professions

Lebanon Valley College has established a cooperative program ("2+2") with Thomas Jefferson University in Philadelphia, Pa. for students interested in the allied health professions. The College of Allied Health Sciences of Thomas Jefferson University offers baccalaureate programs in cytotechnology, cytogenetics, dental hygiene, diagnostic imaging (radiography/ultrasound), medical technology, and occupational therapy, and also offers an entry-level master's program in physical therapy.

Students spend two years at Lebanon Valley College taking required courses in the basic sciences and other disciplines. During the second year, application is made to Thomas Jefferson University. Admission to Thomas Jefferson University is not automatic, and depends upon the academic record, recommendations and an interview. If accepted, the student spends two years (three years for physical therapy) at Thomas Jefferson University taking professional and clinical courses. Upon successful completion of the program, the student is awarded a baccalaureate degree (or master, for physical therapy) by Thomas Jefferson University.

Lebanon Valley College also maintains a cooperative program with Hahnemann University in Philadelphia for students interested in medical technology ("2+3"). Students spend two years at Lebanon Valley and three years at Hahnemann University. The program at Hahnemann University combines both classroom/laboratory study and off-campus salaried work experience. Admission procedures are similar to those described above. Upon successful completion of this program, the student is awarded the baccalaureate degree by Hahnemann University.

Engineering

In the cooperative "3+2" engineering program a student earns a B.S. degree from Lebanon Valley College and a B.S. degree in one of the fields of engineering from another institution. Lebanon Valley has cooperative agreements with Case Western Reserve University, Cleveland, Ohio; University of Pennsylvania, Philadelphia; and Widener University, Chester, Pa. Students who pursue this cooperative engineering program take three years of work at Lebanon Valley College and then usually take two additional years of work in engineering.

Forestry and Environmental Studies

Students completing a three-year program at Lebanon Valley College studying the liberal arts and the sciences basic to forestry and environmental sciences may apply for admission to the cooperative forestry program with Duke University, School of the Environment, Durham, N.C. Upon completion of the first year of the two-year (plus one summer) program at Duke University, the student will receive the Bachelor of Science degree from Lebanon Valley College. After completion of the program at Duke, the student will receive the professional degree of Master of Forestry (M.F.) or Master of Environmental Management (M.E.M.) from Duke University. Students may major in biology, economics, political science, or mathematics at Lebanon Valley College.

For specific program requirements in forestry, see page 81. For those in environmental studies, see page 80.

Medical Technology and Nuclear Medicine Technology

The student spends three years at Lebanon Valley College taking courses to fulfill the requirements of the college and of the National Accrediting Agency for Clinical Laboratory Sciences. Before or during the third year of the program, the student applies to a hospital with a CAHEA approved school of medical technology where he/she spends the fourth year in training. Admission is not automatic and depends upon the academic record, recommendations and an interview. Upon satisfactorily completing the clinical year, the student is awarded the degree of Bachelor of Science in Medical Technology by Lebanon Valley College. The college is affiliated with the following hospitals: Sacred Heart Hospital (in Allentown), Harrisburg Hospital, Polyclinic Medical Center of Harrisburg, Jersey Shore Medical Center-Fitkin Hospital, Lancaster General Hospital, and Reading Hospital and Medical Center. However, the student is not limited to these affiliations and may seek acceptance at other approved hospitals. (Refer to the Allied Health Professions section for additional programs in medical technology.)

The college offers a program for students interested in nuclear medicine technology ("3+1"). The college is affiliated with the schools of nuclear medicine technology at the University of Virginia Medical Center and J.F. Kennedy Medical Center, Edison, NJ. Admission is not automatic and depends upon the academic record, recommendations and an interview. Application may also be made to other accredited programs. Upon successful completion of the program, the student is awarded the baccalaureate degree by Lebanon Valley College.

UNDERGRADUATE PROGRAMS OF STUDY

Internships

An internship is a practical and professional work experience that allows students to participate in the operations of business, industry, education, government, or not for profit organizations. Internships provide students with the opportunity to integrate their classroom learning with on the job experience. Students test the practical application of their liberal arts learning in a variety of professional, service, and occupational settings.

For one semester hour of credit, the intern should invest at least 45 clock hours of time in the internship. The internship essentially involves a contract between the student, the faculty adviser, and the on-site internship supervisor. In addition to the practical on-site experience, internships typically require special readings, reports, journals and faculty conferences. Students may enroll for three to twelve credit hours of internship in any one semester. A maximum of fifteen credit hours in internships may be used towards the graduation requirements. All internships have a course number of 400.

Additionally, elementary education and secondary education majors are required to complete successfully a student teaching field experience. Hotel management majors are also required to complete successfully three supervised field experiences for a total of 9 credits. There are no internships in art, music, or philosophy.

Here is a summary of departmental internship policies.

<u>Discipline</u>	<u>Eligible Students</u>	<u>Prerequisite</u>	<u>Hours per Semester</u>	<u>Other Requirements</u>
Accounting	Jr/Sr Major		1-12	2.75 GPA
Actuarial Science	Jr/Sr Major		1-12	
American Studies			3-6	
Biochemistry	Jr/Sr Major		1-12	2.00 GPA
Biology	Jr/Sr Major		1-4	
Chemistry	Jr/Sr Major		1-12	2.00 GPA
Computer Science	Jr/Sr Major		1-12	
Economics	Jr/Sr Major		1-12	2.75 GPA
English	Communications Majors only		1-12	
French			1-12	
German			1-12	
History			3-6	
Intl. Business	Jr/Sr Major			2.75 GPA
Leadership Studies		LSP 350	3-12	
Management	Jr/Sr Major		1-12	2.75 GPA
Mathematics	Jr/Sr Major		1-12	
Physics			1-12	
Political Science		PSC 111, 112	1-12	
Psychobiology	Jr/Sr Major	PSY 100 or 120	1-12	
Psychology	Jr/Sr Major	PSY 100 or 120	1-12	
Religion			1-6	
Social Work		SWK 341 or 342 and permission of instructor	3-12	2.20 GPA and 40 hr. vol.
Sociology		Permission of instructor	3-6	18 credits in Sociology
Sound Recording Technology		RCT 388 and 487	4	
Spanish			1-12	

Independent Study

Independent study provides students with an opportunity to undertake a program of supervised reading, research, or specialized teaching methods, usually on subjects not incorporated in existing formal courses. Independent study shall not be used to approximate an existing course for a single student or to cover projects more properly described as internships.

For one semester hour of credit, the independent study student should invest at least 45 clock hours of time in reading, research, or report writing. The independent study essentially involves a contract between the student and the faculty adviser.

Students may enroll for one to nine credit hours of independent study in any one semester. A maximum of nine credit hours in independent study may be used toward the graduation requirements. All independent studies have a course number of 500. The following is a summary of departmental independent study policies.

<u>Discipline</u>	<u>Eligible Students</u>	<u>Prerequisite</u>	<u>Hours per Semester</u>
Accounting	Jr/Sr Major		1-6
Actuarial Science			1-3
American Studies			1-9
Biochemistry		CHM 311, 312	2-3
Biology			1-9
Chemistry			1-9
Computer Science			1-9
Economics	Jr/Sr Major		1-6
Education			1-3
Elementary Education			1-3
English			1-3
French		FRN 316	1-6
German			1-6
History			1-3
International Business	Jr/Sr Major		1-6
Leadership Studies	Jr/Sr Major	LSP 100 or 111	3-15
Management	Jr/Sr Major		1-6
Mathematics			1-6
Music	Jr/Sr Major	2.50 GPA and a contract instructor and student	1-3
Philosophy			1-3
Physics			1-3
Political Science			1-3
Psychobiology			1-9

Psychology		PSY 100 or 120	1–6
Religion			1–3
Social Work	Jr/Sr Major	2.50 GPA and a contract between instructor and student	1–3
Sociology	Jr/Sr Major	2.50 GPA and a contract instructor and student	1–3
Sound Recording Technology	Senior Major	2.50 GPA and a contract instructor and student	1–3
Spanish			1–6

There are no independent study courses in art and hotel management.

Tutorial Study

Tutorial study provides students with a special opportunity to take an existing formal course in the curricula that is not scheduled that semester or summer session. Students desiring a tutorial study must have an appropriate member of the faculty agree to supervise the study on a one on one basis.

For one semester hour of credit, the student should invest at least 45 clock hours of time in the tutorial study. The tutorial study essentially involves a contract between the student and the faculty adviser. The typical tutorial study involves readings, research, report writing, faculty conferences, and examinations. All tutorial study courses have the same course number as the existing formal catalog course.

Special Topics Courses

From time to time, departments may offer Special Topics courses using the following course numbers: 290–298, 390–398, 490–498 and 590. Special Topics courses are formal courses that are not listed permanently in the curricula and that are offered infrequently. These courses examine comparatively narrow subjects that may be topical or special interest. Several different topics may be taught in one semester or academic year. A specific course title shall be used in each instance and shall be so noted on the student record.

Department of Art

The Art Department, through course work and the minor program, provides an opportunity for creative expression and a richer understanding of accomplishments in the visual arts.

No major is offered in art. For the minor and course descriptions, see page 63.

Faculty:

Richard A. Iskowitz, associate professor of art. Chairperson.

M.F.A., Kent State University.

He teaches art history, aesthetics and studio and is director of the Mund Center art exhibits. Professor Iskowitz' special interest is photography, and his work is exhibited frequently in juried competition.

G. Daniel Massad, adjunct instructor of art and literature.

M.F.A., University of Kansas.

He has achieved national status as a pastel artist.

R. Gordon Wise, adjunct professor of art.

Ed.D., University of Missouri.

Dr. Wise is a Professor of Art at Millersville University and specializes in art education.

Department of Biology

The aims of the program for biology majors are:

- (1) to provide a thorough understanding of the principles of biology and background in disciplines basic to biology;
- (2) to develop skills in the application of the scientific method and in the retrieval and communication of technical information;
- (3) to train students for employment at the baccalaureate level and to provide preparation for those interested in graduate, professional and medical programs.

The department offers a major program in biology, and joint majors in biochemistry and psychobiology. For the major and course descriptions in biology, see page 65. For those in psychobiology, see page 114.



A student-faculty ratio of 13 to 1 ensures individualized instruction and advisement.

For Cooperative Programs, see page 25.

Faculty:

Dale J. Erskine, associate professor of biology.

Ph.D., University of Oklahoma.

He teaches animal physiology, introduction to immunology, human biology, and participates in general biology. He believes in introducing his students to a wide range of laboratory experiences including modern instrumentation and computer-assisted data collection. His research interests are in temperature regulation and thermal tolerance, heat energy budgets, and computer analysis and simulation of animal-environment interactions. He is also director of the Summer Youth Scholars Institute.

Sidney Pollack, professor of biology.

Ph.D., University of Pennsylvania.

He teaches courses in genetics, microbiology, human biology, and general biology. He is the academic adviser for students preparing for the allied health professions. His research interests include paramecium genetics.

Susan Verhoek, professor of biology.

Ph.D., Cornell University.

She teaches plant form and function at the general biology level, and form, interrelationships and systematics of non-vascular and vascular plants at the advanced level. Her research is on the pollination biology and systematics of members of the Agave family. A past president of the Society for Economic Botany, she has a long-standing interest in the interactions of plants and humans, and, as author of a field identification book, a continuing interest in plants that flower in the spring.

Stephen E. Williams, professor of biology.

Ph.D., Washington University, St. Louis.

He teaches molecular biology, plant physiology and the biochemical portions of general biology. He is a plant and cell physiologist who, working together with Lebanon Valley College students and scientists at other institutions, has made most of the major contributions to the understanding of the physiology of carnivorous plants during the past twenty years, including the discovery of the mechanism of Venus flytrap closure. He has over five years of experience automating laboratory instruments with microcomputers.

Paul L. Wolf, professor of biology. Chairperson.

Ph.D., University of Delaware.

He teaches courses in general biology, comparative vertebrate anatomy, ecology and environmental science. His research interests focus on the ecology of wetlands with particular emphasis on saltmarshes of Eastern United States and methane production in freshwater marshes. He also holds the position of Adjunct Professor of Marine Biology in the Graduate College of Marine Studies, University of Delaware.

Allan F. Wolfe, professor of biology.

Ph.D., University of Vermont.

He teaches comparative histology, developmental biology, invertebrate zoology, electron microscopy, general biology, and parasitology, and directs independent study in cell biology using electron microscopic and histological techniques. His current research utilizes the brine shrimp, *Artemia*, to study the cell and tissue levels of organization of the digestive, reproductive, and neurosensory systems.

Anna F. Tilberg, lecturer in biology.

B.A., University of Pennsylvania.

She is on the staff of the Milton Hershey Medical Center and teaches human biology.

Department of Chemistry

Chemistry is the "central science" that provides the fundamental understanding needed for protecting our environment, maximizing the yield from limited natural resources, improving our health, and creating new materials for tomorrow's products. Indeed, chemistry is essential to understanding life itself.

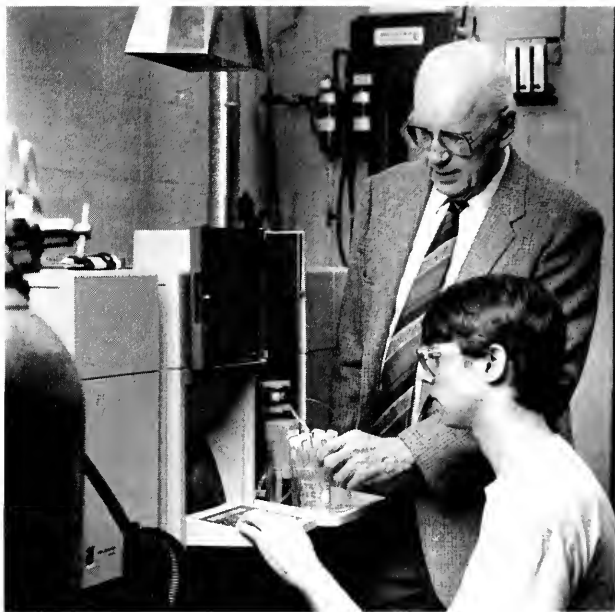
Career opportunities in chemistry are numerous and diverse. Many students enter industrial or governmental laboratories where they find positions in environmental analysis, quality control, or research and development. Possibilities outside of the laboratory include teaching, sales, marketing, technical writing, business, and law. Many chemistry students continue their education in graduate school in chemistry or biochemistry, or in professional schools in the areas of medicine, dentistry, or veterinary medicine.

At Lebanon Valley College the Department of Chemistry is located on the upper two floors of the Garber Science Center. Major scientific equipment available to students includes two nuclear magnetic resonance spectrometers, a liquid scintillation counter, a fourier transform infrared spectrometer, a high performance liquid chromatographic system, a diode-array UV-visible spectrophotometer, a gas chromatograph-mass spectrometer, and an atomic absorption spectrophotometer. Computers available to students in the department include Macintosh and IBM-compatible machines.

The department encourages students to discover the excitement and challenge of laboratory research. Research programs are conducted during both the academic year and the summer. Students are paid for summer research either from college funds or from grants that professors receive to support their projects.

Two degrees are available to those interested in chemistry, and one for those interested in biochemistry. The Bachelor of Science in Chemistry is the more demanding of the two degrees in chemistry, and is recognized by the American Chemical Society. This degree has a required research component and is recommended for students who wish to become practicing chemists or enroll in graduate school. Other students opt for the standard Bachelor of Science, majoring in chemistry.

Professors and students work with the latest state-of-the-art scientific equipment.



For the major programs and course descriptions in chemistry, see page 68.

The major in biochemistry is offered jointly with the Biology Department. For the major program and course descriptions in biochemistry, see page 64.

Faculty:

Richard D. Cornelius, professor of chemistry.

Ph.D., University of Iowa; postdoctoral research, University of Wisconsin.

Inorganic Chemistry. Professor Cornelius works at the border of inorganic chemistry and biochemistry. He has interests both in the fundamental mechanisms of phosphoryl transfer reactions and in the development of platinum compounds that hold promise for anti-cancer activity. He and his students synthesize new compounds containing phosphates and study the rates of reactions of these compounds. He also has earned a national reputation for his work with computers in chemical education.

Donald B. Dahlberg, professor of chemistry.

Ph.D., Cornell University; postdoctoral work, University of Toronto.

Physical chemistry and chemometrics. Dr. Dahlberg does research in the application of multivariate statistics to chemical problems. He is also an industrial consultant in this area. He is presently studying the use of chemometrics and Fourier transform infrared spectroscopy in the analysis of edible oils. Food manufacturers must perform dozens of expensive and time-consuming analyses to guarantee the quality of their products. Through the use of modern chemical instrumentation and sophisticated mathematical techniques, it may be possible to replace these tests with just one.

Thomas E. Hagan Jr., assistant professor of chemistry.

Ph.D., University of Delaware.

Inorganic chemistry. Professor Hagan is interested in research at the interface of inorganic chemistry and biochemistry. Dr. Hagan's research involves construction of inorganic model systems for enzymes and other types of proteins.

Owen A. Moe Jr., professor of chemistry. Acting chairperson.

Ph.D., Purdue University; postdoctoral study, Cornell University.

Biochemistry. Professor Moe is interested in applying the array of new techniques in biotechnology to practical problems. He is currently working on the use of immobilized enzymes for the synthesis of bio-organic compounds. Processes that he is developing are designed to use stable, inexpensive polyphosphates for the regeneration of ATP. ATP regeneration is a required, but currently an expensive, step in the use of enzyme reactors for organic synthesis.

Stephen R. Sexsmith, assistant professor of chemistry.

Ph.D., State University of New York at Binghamton.

Organic Chemistry. Professor Sexsmith is interested in the interaction of main-group and transition metal organometallic compounds as it relates to Ziegler-Natta polymerization catalysts. Of specific interest are the reactions of organoaluminum compounds with zero-valent nickel species. He is also interested in utilizing organometallic compounds in the study of coal liquefaction.

H. Anthony Neidig, professor and chairperson emeritus.

Ph.D., University of Delaware.

Recipient of the Chemical Manufacturers' Association College Chemistry Teacher Award in 1970 and the E. Emmet Reid Award for excellence in teaching in a small college in 1978. Professor Neidig's pursuits include the development and publication of laboratory experiments for introductory chemistry.

Department of Education

The Department of Education prepares students for both elementary and secondary teaching.

The Education Department is committed to preparing elementary education majors who have a thorough grounding in the disciplines they will teach within the context of a strong liberal arts foundation. The program includes intensive training in the content and methodologies of all elementary school subjects.

The field-centered component in the program provides extensive and carefully sequenced opportunities to work with teachers and children in a variety of school settings during all four years of preparation for teaching. Majors spend an average of two hours per week each semester in various public school classrooms, observing teachers and children, aiding, tutoring, providing small-group and whole-class instruction, and completing tasks on increasingly challenging levels of involvement. Seniors spend the fall semester in full-time

student teaching with cooperating teachers who have been carefully chosen for that role. Additional opportunities are provided for our students to work in nursery schools, child care centers, Head Start programs, middle schools, and in classes for exceptional children.

Students pursuing secondary teacher certification are prepared for teaching by completing an intensive program in the departmental major(s) of their choice in conjunction with a carefully sequenced professional education component within the Education Department. Both the major program and the professional education component are completed within the context of a strong foundation in the liberal arts.

Departmental majors may seek certification in biology, chemistry, English, French, German, Spanish, mathematics, physics, and social studies.

Opportunities are provided candidates to observe and to teach in junior high and high school settings prior to the full-time student teaching semester. Cooperating teachers are selected through a process involving college faculty, public school personnel, and the student teachers, thus assuring the most beneficial placements possible.

Dual certification, at both the elementary and secondary levels, or in more than one secondary area, is possible; however, such certification requires meticulous attention to scheduling and often requires additional semesters.

Post-baccalaureate certification is also available for those who wish to become elementary or secondary school teachers or for those already certified who want to add elementary or secondary education to an existing certificate.

The Education Department is intent on preparing well-rounded and qualified graduates who will exercise genuinely professional and personal leadership roles in the schools and communities where they will work.

The major and course descriptions in elementary education are on page 75. The program and course descriptions in secondary education are on page 119. The descriptions of courses in education are on page 74.

Faculty:

Susan L. Atkinson, associate professor of education.

Ed.D., Temple University.

She teaches method courses in mathematics, science, social studies, and language arts, plus courses in the foundations of education and physical geography. She supervises student teachers. Her research interests are in the area of matching student/teacher learning styles to increase academic achievement. Her areas of interest include multidisciplinary curricula, classroom management and early childhood education. She is the adviser for the college's professional teaching organization, which includes secondary, elementary, and music education majors.



Resource materials are easily accessed through a computerized library database.

Joseph H. Clapper, assistant professor of education.
Ed.D., The Pennsylvania State University.

He teaches courses in educational foundations and elementary education methods courses in mathematics, social studies and the language arts. He also teaches courses in secondary school curricula, classroom management and teaching methodologies. He assists in coordinating field practica in the public schools and in supervising student teachers. His research interests include curriculum and instruction, educational psychology and supervisory factors involved in the supervision of student teachers.

Michael A. Grella, professor of education. Chairperson.
Ed.D., West Virginia University.

He teaches courses in children's literature, reading, the language arts, social studies, early childhood education, and exceptional children. He coordinates early field practica in the public schools and supervises student teachers. He serves as the department's chief liaison with public school personnel and with the Pennsylvania Department of Education. He maintains a special interest in the acquisition of literacy at the primary grade levels and in learning disabilities.

Dale E. Summers, assistant professor of education.
Ed.D., Ball State University.

He teaches courses in educational foundations, secondary school curricula and methodologies, and adolescent development. He serves as supervisor of student teachers and as coordinator of pre-student teaching field experiences. He maintains a particular interest in special education for the emotionally disturbed at both the elementary and secondary level.

Department of English

The major in English introduces students to the humanistic study of literature or to the humanistic practice of writing. While English majors may choose to concentrate in literature, communications or secondary education, the basis for all concentrations is the systematic and analytic study of literature. All majors also learn clear, concise, and coherent expression as well as effective collection, organization, and presentation of material. Such study prepares the student for more advanced work in many fields. Graduates of the Department of English are prepared to work in journalism, teaching, editing, public relations, publishing, advertising, government, industry, the ministry, and law.

The English Department offers a major program with concentrations in literature, communications, and secondary education, as well as minors in both literature and communications. For program and course descriptions, see page 77.

Faculty:

Philip Billings, professor of English. Chairperson.

Ph.D., Michigan State University.

He teaches courses in contemporary literature and aesthetics as well as creative writing. His publications include poems in various magazines and two books of poems based on people living in the region.

Phylis Dryden, assistant professor of English.

D.A., State University of New York at Albany.

She is a specialist in composition theory, linguistics, and American Studies and has experience in journalism and in industry. She publishes poetry, fiction, and non-fiction and has recently studied in an NEH Summer Seminar at Boston College.

Arthur L. Ford, professor of English.

Ph.D., Bowling Green State University.

He has published books on several American authors, including Thoreau and Creeley, and articles on composition theory and the computer in composition. Recent Fulbright lectureships in Syria and China have resulted in several research projects.

John Kearney, professor of English.

Ph.D., University of Wisconsin.

He is a nineteenth century British literature scholar working on a book on Dickens, who also teaches technical writing and directs the department internship program.

Gary Grieve-Carlson, assistant professor of English.

Ph.D., Boston University.

He has taught at the University of Tennessee and Virginia Technical University and was a Fulbright Junior Lecturer in Germany. He has published several articles on his field of American literature.

Anne R. Higginbottom, assistant professor of English.

M.A., State University of New York at Binghamton.

In her doctoral dissertation on play in modern women's fiction and in her courses she is interested in new voices in literature. She has also served as adviser to the Black Culture Club.

Marie Bongiovanni, assistant professor of English.

M.B.A., Drexel University.

Experienced in journalism and business, she teaches management communications, editing and journalism. She recently completed a summer writing program at Bennington College.

Agnes O'Donnell, professor emerita of English.

Ph.D., University of Pennsylvania.

Glenn Woods, associate professor emeritus of English.

M.Ed., Temple University.

Kevin Pry, adjunct assistant professor of English.

Ph.D., The Pennsylvania State University.

Dramaturge for local theater companies; he teaches Dramatic Literature, Theater Workshop, and World Literature.

Carole Bitts, adjunct lecturer in English.

B.S., Millersville University.

Community Services Director at WGAL-TV, Lancaster. Teaches Radio and TV Writing.

Department of Foreign Languages

The study of a foreign language has three aims: to develop fluency in the basic communication skills, to provide an understanding of the cultural heritage of the people who use the language, and to understand language as the fundamental medium by which humankind thinks and interacts.

The Department of Foreign Languages prepares the language major for a career in a variety of fields: teaching, diplomatic and government service, foreign trade, business and social service. For many of these careers the study of a foreign language is often combined with majors in other disciplines.

The department encourages students to avail themselves of the college's opportunities for foreign travel and study, including the International Student Exchange Program.

The Department of Foreign Languages offers majors in French, German, and Spanish, and in Foreign Language, as well as minors in the three languages. In addition, coursework, but no major or minor, is offered in Greek and Japanese. The department also offers the major in International Business jointly with the Management Department.



Students have the opportunity to take classes in French, German, Spanish, Greek and Japanese.

The major, minor and course descriptions in French are on page 81. Those in German are on page 84. Those in Spanish are on page 124. The major in Foreign Languages and the descriptions of general courses in foreign language are on page 80. The course descriptions in Greek are on page 85. The course descriptions in Japanese are on page 91. The major in International Business is on page 91.

Faculty:

Diane M. Iglesias, professor of Spanish. Chairperson.

Ph.D., City University of New York.

She teaches courses in Spanish language, and in Spanish and Latin American culture, civilization and literature. She has presented research papers in medieval balladry and the theater of the Spanish Golden Age at scholarly conferences. Her current research is in the area of the modern Latin American novel. She is particularly interested in the concept of "magical realism" as it applies to the works of Gabriel García Márquez.

Leonie Lang-Hambourg, instructor of German.

M.A., University of Oregon

Experienced as an interpreter and translator, she teaches courses in German language and literature, culture, poetry and diction.

James W. Scott, professor of German.

Ph.D., Princeton University.

He teaches the language, literature and culture of German speaking areas. One continuing scholarly interest is medieval hagiography. His recent research and writing has focused on contemporary German literature and film. Past summers have taken him to Bonn on a Fulbright grant, to the Carl Duisberg Institute to study business German and to Leipzig to

attend a seminar on the German Democratic Republic. He serves as president of the Presidents Assembly of the American Association of Teachers of German. Dr. Scott will be teaching for the college's Program in Cologne, Germany, during the Fall 1992 semester.

Joelle L. Stopkie, assistant professor of French.

Ph.D., Bryn Mawr College.

She is a member of the American Association of Teachers of French (AATF), and the American Council on the Teaching of Foreign Languages (ACTFL) and also Phi Sigma Iota, the National Foreign Language Honor Society.

Andrés Zamora, assistant professor of Spanish.

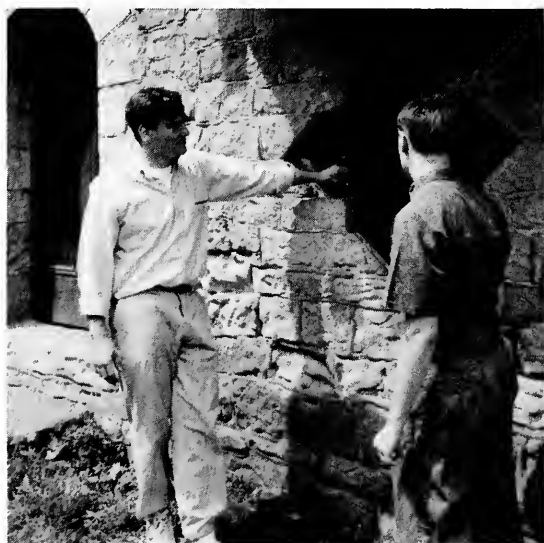
M.A., University of Southern California, Los Angeles.

He teaches a wide array of subjects from basic language to literature, art and culture of the Hispanic world. He has worked on Medieval literature, the Golden Age Comedia, Cervantes and the Modern Latin American Novel. He is currently studying the poetics of the Spanish Novel in the nineteenth and twentieth centuries.

Department of History and American Studies

By examining human behavior in the past, the study of history can help people better understand themselves and others. Students of history also learn how to gather and analyze information and present their conclusions in clear, concise language.

An undergraduate degree in history or American studies can lead to a career in teaching at the college or high school level, law, government, politics, the ministry, museum or library work, journalism or editing, historical societies and archives, private foundations, business, or a number of other professions.



*Internships at area historic sites
provide "real world"
experience.*

For the major, minor, and courses in history, see page 86. For those in American studies, see page 62.

Faculty:

Howard L. Applegate, associate professor of history and American studies, secretary of the college.

Ph.D., Syracuse University.

He teaches American business history, American social history and American military history. His current research interest is the American automotive industry.

James H. Broussard, professor of history. Chairperson.

Ph.D., Duke University.

He teaches American history and historiography. His research and publications concentrate on the Jefferson-Jackson era, the South, and American politics. He is also executive director of the Society for Historians of the Early American Republic.

Donald E. Byrne Jr., professor of history and religion and director of American Studies Program.

Ph.D., Duke University.

His teaching centers on the history of Christianity and religion in America, and he participates in the Honors and Leadership Studies programs. His scholarship has focused on American folk religion; other interests include religion and literature, peace studies, and mysticism.

Richard A. Joyce, associate professor of history.

M.A., San Francisco State College.

He teaches ancient, medieval, and modern European history. He is particularly interested in social and intellectual history.

The Department of Management

The Department of Management offers programs leading to the bachelor of science degree in accounting, hotel management, management, and international business (jointly with Foreign Languages Department). The department also offers a minor in hotel management.

The department's programs are designed to provide students with a sound, integrated knowledge of accounting and management principles, and related courses from supporting disciplines. The Department's programs are enhanced by the liberal arts and leadership studies core required of all students, and by the extensive application of computers in relevant courses. This interdisciplinary knowledge base is essential for assuming leadership and management positions in the changing world of the 1990s and beyond.

Management students are provided with a common body of knowledge in close conformity with the national standards for the study of business administration as recommended by the American Assembly of Collegiate Schools of Business. As a result, our graduates are well prepared for admittance to M.B.A. programs.

Opportunities are available for qualified and interested students to undertake an independent study project or an internship in consultation with a member of the department faculty.

The major and course descriptions in accounting are on page 60; those in hotel management are on page 89; those in international business are on page 91; and those in management are on page 92.

Faculty:

Donald C. Boone, assistant professor of hotel management. Acting chairperson, fall 1992. *M.B.A., Michigan State University.*

He has 18 years of hotel industry experience and has taught several years in Hotel Management programs. Mr. Boone serves as Coordinator of the Hotel Management Program and teaches Hotel Management, Management and Accounting.

Sharon F. Clark, associate professor of management.

J.D., University of Richmond.

She has several years experience in private law practice and several years as a supervisory tax attorney with the Internal Revenue Service. Dr. Clark teaches corporate income tax and a variety of management courses including Human Resource Management, Business Law, Labor and Industrial Relations, and Hotel Law.

Ordelia W. Jennings, assistant professor of accounting.

M.B.A., Rutgers University

Ms. Jennings has worked in the public sector as a CPA and has several years of industry experience with a Fortune 500 corporation. Ms. Jennings teaches Financial and Managerial Accounting, Intermediate Accounting, Cost Accounting and Management Information Systems.

Robert W. Leonard, assistant professor of management.

M.B.A., The Ohio State University.

Mr. Leonard teaches Managerial Finance, Principles of Management, Productions Operations Management, Organizational Behavior and Development, and Labor and Industrial Relations.

Barney T. Raffield III, associate professor of management.

Ph.D., Union Graduate School.

Dr. Raffield teaches courses in Marketing, Business Policy, Advertising, Consumer Behavior, and International Business Management. He has just completed co-authoring a textbook on Marketing Management.

Gail Sanderson, assistant professor of management.

M.B.A., Boston University.

A C.P.A., Ms. Sanderson has professional experience in accounting (public and private sectors); income tax; computer systems analysis and design. Ms. Sanderson teaches Finan-

cial and Managerial Accounting, Cost Accounting, Individual Income Tax, Intermediate Accounting and Management Information Systems.

Barbara S. Wirth, assistant professor of accounting.

M.B.A., Lehigh University.

Ms. Wirth has worked in the public sector as a CPA for six years. Ms. Wirth teaches Auditing, Governmental and Non-Profit Accounting, Principles of Accounting, and Managerial Accounting.

Robert W. Biddle Jr., adjunct assistant professor of hotel management.

Ed.M., Pennsylvania State University.

Mr. Biddle is Culinary Arts Instructor at Milton Hershey School.

Jay H. Feaster, adjunct instructor in management.

J.D., Georgetown University Law Center.

Mr. Feaster teaches Business Law and Hotel Law.

Charlotte Folmer, adjunct instructor of accounting.

B.S., Susquehanna University.

Ms. Foster teaches Financial Accounting and is a CPA.

Michael C. Zeigler, adjunct instructor in management.

B.S., The Pennsylvania State University.

Mr. Zeigler is Director of User Services and Computer Workshops at Lebanon Valley College and teaches Computer Applications in Business.

Department of Mathematical Sciences

The Lebanon Valley College Department of Mathematical Sciences has long offered a rigorous mathematics program within the context of a liberal arts education. Today an increasing national need for mathematically prepared individuals has made our program even more attractive. Computer scientists, secondary school mathematics and computer science teachers, college professors in mathematical sciences, actuaries, operations research analysts, and statisticians are in high and continuing demand. In addition, the mental discipline and problem solving abilities developed in the study of mathematics have long been recognized as excellent preparation for numerous and varied areas of work or study.

The department offers majors in actuarial science, computer science, applied computer science, and in mathematics, and minors in computer science and in mathematics.

Five students from this department have earned Fulbright Scholarships in recent years for graduate study abroad. Departmental graduates have earned Ph.D.s in physics, statistics and computer science as well as mathematics. Other graduates have completed law school. Many graduates are Fellows of the Society of Actuaries and the Casualty Actuarial Society.

Regularly, nearly one-fifth of the Lebanon Valley students named to the Who's Who in American Colleges and Universities will be students from this department.

Actuarial Science

An actuary is a business professional who uses mathematical training to define, analyze and solve financial and social problems. Actuaries are employed by insurance companies, consulting firms, large corporations, and the federal and state governments. The Society of Actuaries and the Casualty Actuarial Society establish and monitor the professional qualifications of actuaries through a series of rigorous examinations.

The Actuarial Science program at Lebanon Valley College was established in the mid 1960s and is coordinated by Professor Hearsey, an Associate of the Society of Actuaries. Lebanon Valley College has nearly 100 alumni working in the actuarial profession. The coursework is selected to provide a foundation in mathematics, accounting and economics and to prepare students for courses 100–150 of the Society of Actuaries syllabus and parts 1–4 of the Casualty Actuarial Society syllabus. A student may prepare for additional examinations through independent study. Lebanon Valley College is the only small undergraduate liberal arts college in North America with such an extensive actuarial science major. Lebanon Valley has had nearly 100% placement of actuarial science graduates, with graduates employed by over 50 organizations.

Computer Science

In new facilities and with a wide range of available computer equipment, the department offers a flexible program in computer science. Two distinct majors offer opportunities and challenges for the theoretically minded, and for those whose interests are directed towards applications.

The program in computer science was recently revised and all courses were modified to reflect the latest changes in the field, both in hardware and in software. The result is a compact sequence of courses of introductory material and in specialized advanced topics that allow immediate adaptation of the state of the art, and to the interests of the students. Particular attention is given to graphics and its application to fractals.

Separate computer laboratories in the department and in the computer center allow the students liberal access to a large variety of microcomputers and to a DEC VAX system. An expanding network facilitates the use of major operating systems and allows experimentation with some of the latest computer communication devices.

Mathematics

The increasing role of technology in modern society and the broadening scope of the scientific paradigm have generated a growing need for mathematicians in business, industry and government. Also, the national goal of improving the mathematical competence of high school graduates has created a demand for teachers and professors in mathematics that will not subside for many years. A bright and rewarding future awaits anyone who chooses mathematics as his or her profession.

The department continues its reputation of preparing its students for a variety of mathematical specialties by maintaining high standards of performance. A full roster of traditional courses, seminars, and independent study prepares our students for a career or graduate study.

A group of core courses sets the foundations of mathematical knowledge and gives the student time to discover the direction of his or her interest. Advanced courses prepare the student for graduate study, the teaching profession, and a variety of careers in statistics, operations research, and research and development in industry and business.

Close cooperation with other departments allows the student also to have a major or minor in another field to enhance the opportunities after graduation.

The major and courses in actuarial science are on page 61. Those in computer science and applied computer science are on page 70. Those in mathematics are on page 95.

Faculty:

Michael D. Fry, associate professor of mathematical sciences.

Ph.D., University of Illinois.

Dr. Fry is president of the Susquehanna Valley Chapter of the Association for Computing Machinery, and is a member of the Executive Board of the Eastern Pennsylvania and Delaware Section of the Mathematical Association of America. His interests include geometry of fractals, mathematical computing, analysis of algorithms, graphics, and programming from machine language up. He teaches courses at all levels in computer science, statistics, upper level geometry and algebra, and other mathematics courses.

Bryan V. Hearsey, professor of mathematical sciences. Coordinator, Actuarial Science Program.

Ph.D., Washington State University.

Dr. Hearsey is an Associate of the Society of Actuaries, and serves on two Society of Actuaries National Committees. He is a member of the Mathematical Association of America's Annual Junior High School Exam Committee. He teaches upper level actuarial science courses and a broad range of mathematics courses.

Thomas Jyh-cheng Liu, assistant professor of mathematical science.

Ph.D., University of Illinois.

Dr. Liu has earned an M.S. each in Computer Science and Engineering. He is a multidiscipline researcher and teacher. He is interested in computer architecture, artificial intelligence, computer applications in natural science and applied mathematics. He teaches a broad range of computer science courses and applied mathematics courses.

Joerg W. P. Mayer, professor of mathematical sciences.

Ph.D., University of Giessen.

Dr. Mayer has extensive experience in undergraduate and graduate teaching, and in government and industrial consulting. His publications range from mathematical research to

educational philosophy, including numerous reviews in mathematical and computer sciences, and textbooks on algebraic topology and computer assembly language. His teaching interests lie in advanced mathematics and basic computer science.

Horace W. Tousley, associate professor of mathematical sciences. Chairperson.
M.S.I.E. (OR), University of Alabama.

Mr. Tousley is a career military logistician and operations research practitioner. He is interested in mathematical modeling, quantitative methods, and applications. He teaches operations research, selected upper division courses, and a broad range of other courses.

Mark A. Townsend, associate professor of mathematical sciences.
Ed.D., Oklahoma State University.

Dr. Townsend is most interested in numerical analysis, applied mathematics, teacher education, and innovative methods for teaching mathematics to college students. He is a past recipient of LVC's Lindback Award for Distinguished Teaching. He teaches a wide range of mathematics courses, from freshman level courses for humanities and business majors to upper level courses for math majors.

Timothy M. Dewald, adjunct lecturer in mathematical sciences.
M.Div., Andover Newton Theological School.

Rev. Dewald is interested in the history of mathematics and enjoys teaching students with "math anxiety". He teaches algebra and trigonometry, the pre-calculus course, MAS 100, Basic Concepts of Mathematics, as well as the beginning and intermediate MS-DOS seminars for industry and the community.

James S. Hume, adjunct assistant professor of mathematical sciences.
M.S., Virginia State College.

Mr. Hume is an independent financial consultant. His teaching specialty is applied mathematics.

Military Science Program

The Military Science Program adds another dimension to a Lebanon Valley College liberal arts education by offering courses that develop a student's ability to organize, motivate, and lead others.

Participation in military science courses during the freshman and sophomore years results in no military obligation. Courses during these years orient students on the various roles of Army officers. Specifically, these courses stress self-development: written and oral communication skills, leadership, bearing, and self-confidence.

Individuals who elect to continue in the program during the junior and senior years shall receive a commission as a second lieutenant in the United States Army upon graduation. They shall be required to serve three months to four years in the active Army, depending upon the type of commission.

Options are available for those individuals who encounter scheduling conflicts or who desire to begin participation after their freshman year. Contact the Professor of Military Science, Dickinson College, 717-245-1221, for further information.

Program participants may take part in various enrichment activities during the academic year: rappelling, rifle qualification, cross-country skiing, white-water rafting, leadership exercises, land navigation, orientation trips, and formal social functions. Program participants may also apply for special training courses during the summer: airborne, air assault, and northern warfare schools.

Financial Assistance: Books and equipment for military science courses and the ROTC program are provided free of charge to all cadets. All juniors and seniors in the ROTC program (Advanced Course) and scholarship cadets are paid a tax-free subsistence allowance of \$100 per month and receive certain other benefits.

Scholarships: Army ROTC scholarships based on merit are available. Recipients receive 80% tuition (Lebanon Valley College will provide a 20% supplement to the 80% tuition for qualified applicants), academic fees, a semester allowance for books and supplies, and a \$100 per month subsistence allowance. Cadets and other Lebanon Valley students may compete for three-year (starts in sophomore year) scholarships. Recipients agree to a service obligation. For additional information, contact the Professor of Military Science, Dickinson College, 717-245-1221.

Corresponding Studies Program: Students participating in an off-campus study program in the United States or abroad may continue participation in either the Army ROTC Basic Course or Advanced Course and receive the same course credit and benefits as a student enrolled in the on-campus program. Scholarship students also are eligible to participate in this program.

Advanced Leadership Practicum: The practicum consists of a six-week summer training program at an Army installation that stresses the application of military skills to rapidly changing situations. Participants are evaluated on their ability to make sound decisions, to direct group efforts toward the accomplishment of common goals and to meet the mental and physical challenges presented to them. Completion of this practicum is required prior to commissioning and is normally attended between the junior and senior years. Participants receive room, board, travel expenses, medical care, and pay.

The requirements and course descriptions in military science are on page 98.

Faculty:

Michael A. Casey, instructor in military science.

B.A., University of Notre Dame. Captain, U.S. Army, Field Artillery.

Instructs fourth year Military Science. His assignments include command and staff positions in active duty and reserve forces Field Artillery units.

Alfred T. Jelinek, instructor in military science.

M.B.A., Columbus College. Major, U.S. Army, Field Artillery.

Instructs third year Military Science and Tactics. His assignments include command and staff positions in active duty Field Artillery units.

Thomas L. Oetjen, professor of military science.

M.A., Middlebury College. Lieutenant Colonel, U.S. Army, Field Artillery.

Assignments include command and staff positions in various Field Artillery units and German professor at U.S. Military Academy, West Point, N.Y.

Department of Music

Students in the Department of Music may major in one of three areas: music, music education, or sound recording technology. Each student, regardless of major, is required to take a core of courses in music theory and music history. Each student also completes additional course work particular to his/her area of interest.

Music majors will exhibit proficiency at the piano and in voice, each to be determined by jury. Precise requirements for these proficiencies and the Recital Attendance requirement are found in the Department of Music Student Handbook. To prepare for proficiency juries, students can take MSC 510 and/or 520. Music majors will be in at least one major performing ensemble (identified as either Marching Band, Symphonic Band, Concert Choir, or Symphony Orchestra) each fall and spring semester. All students may earn up to 12 credits for ensemble participation. They will enroll in private study on their principal instrument/voice during each fall and spring semester.

Students registered for private instruction in the department are not permitted to study in that instructional area on a private basis with another instructor, on or off campus, at the same time.



Individual attention is one of the outstanding features of the music curriculum.

The Bachelor of Arts in Music (B.A.) is designed for those students preparing for a career in music with a strong liberal arts background. All B.A. candidates will take an hour lesson per week in their principal performance medium. The Theory/Composition concentration students will take 530 private applied and 530 individual composition each semester to fulfill this requirement. B.A. in Music students are expected to give a one-half junior recital, and a full senior recital. These are given in consultation with and at the recommendation of their private instructor and a pre-performance jury. Concentrations identified in the Department of Music Student Handbook include: Piano, Organ, Voice, Instrumental, Sacred Music, and Theory/Composition.

The Bachelor of Science in Music Education (B.S.), approved by the Pennsylvania Department of Education and accredited by the National Association of Schools of Music, is designed for the preparation of public school music teachers, kindergarten through grade twelve, instrumental and vocal. Piano and voice proficiencies for the music education major prepare the candidate to meet the standards of the Pennsylvania Department of Education and are administered by competency jury. Students participate in student teaching in area elementary and secondary schools. In all field experiences, as well as the student teaching semester, each student is responsible for transportation arrangements. During the student teaching semester, the candidate is not required to register for recital attendance, private lessons, or an ensemble.

The Bachelor of Music: Emphasis in Sound Recording Technology (B.M.) is designed for students who wish to gain theoretical and practical knowledge necessary for careers in the fields of audio production, radio, television, and film.

For the majors in music, music education, music with emphasis in sound recording technology, the minor in music, and course descriptions in music, see page 99.

Faculty:

George D. Curfman, professor of music education.

Ed.D., Pennsylvania State University.

He teaches music education methods courses and coordinates music student teaching. He serves as a consultant/clinician for the Pennsylvania Music Educators Association and advises the campus Pennsylvania Collegiate Music Education Association.

Scott H. Eggert, associate professor of music.

D.M.A., University of Kansas.

He teaches music theory, composition, music history, class and applied piano. He is active as a composer and has premiered major works on and off campus.

Klement M. Hambourg, associate professor of music.

D.M.A., University of Oregon.

He teaches violin and viola and string methodology; coaches chamber ensembles and conducts the College-Community Orchestra. He performs in solo recitals, is a member of the Reading Symphony, and has conducted at the Allegheny Summer Festival of Music.

Robert H. Hearson, associate professor of music.

Ed.D., University of Illinois.

A low brass specialist, he teaches courses in instrumental music education and brass pedagogy, and supervises music student teaching activities. He is founder/director of the LVC Summer Music Camp and host conductor/coordinator of the LVC Honors Band. He maintains a special interest in brass ensemble music, and is active as a performer, clinician, adjudicator, and guest conductor.

Mark L. Mecham, associate professor of music. Chairperson.

D.M.A., University of Illinois at Urbana-Champaign.

His doctorate is in choral music, and he has experience in choral conducting, music education, and voice. Conductor of the LVC Concert Choir and Chamber Choir, he also serves as adjudicator, clinician, and consultant.

Philip G. Morgan, associate professor of music.

M.S., Pittsburg State University (Kansas).

He teaches applied voice with specialization in vocal technique, vocal pedagogy and vocal literature. He performs frequently in solo recitals, oratorios, and chamber recitals in the United States and Europe. He serves as vocal coach for HersheyPark's summer shows.

Suzanne Caldwell Riehl,

assistant professor of music and director of special music programs.

M.M., Westminster Choir College.

She teaches applied organ and piano, sacred music courses, and theory classes for the preparatory department. She performs frequently in solo organ and harpsichord recitals.

C. Robert Rose, associate professor of music.

D.M., Indiana University.

He teaches applied clarinet and courses in music theory, literature, orchestration, and woodwind methods. He conducts the Symphonic Band and maintains an active schedule as clarinetist in solo and chamber music recitals and as an instrumental conductor.

Dennis W. Sweigart, professor of music.

D.M.A., University of Iowa.

He teaches applied piano and courses in keyboard harmony, form and analysis and piano pedagogy. He regularly performs as a soloist and as an accompanist. He serves as the faculty adviser to Phi Mu Alpha Sinfonia, the men's music fraternity.

Teresa R. Bowers, adjunct instructor in music.

M.M., Ohio State University.

She teaches applied flute, double reeds, flute pedagogy, and conducts the flute ensemble. She is a member of Duo Francais, a flute-harp duo, and frequently appears as a recitalist and clinician.

Erwin P. Chandler, adjunct assistant professor of music.

M.M., Indiana University.

He teaches applied horn and is active as a composer/arranger and conductor.

James A. Erdman II, adjunct instructor in music.

Retired solo trombonist, "The Presidents Own" United States Marine Band, Washington, D.C. He teaches low brass instruments and is founder and director of the LVC Low Brass Ensemble. He is active as a performer on the trombone and appears nationally as a soloist and clinician.

Timothy M. Erdman, adjunct instructor in music.

B.S., Temple University.

Formerly trumpet soloist, "The President's Own" United States Marine Band, Washington, D.C.; he has been principal trumpet with the Harrisburg and Reading Symphonies. Instructor of applied trumpet, he is a member of "Basic'ly Brass," a professional brass quintet.

Nevelyn J. Knisley, adjunct associate professor of music.

M.F.A., Ohio University.

She performs extensively as a piano soloist, accompanist and chamber music performer. She serves as faculty adviser to Sigma Alpha Iota, the women's music fraternity.

James E. Miller, adjunct instructor in music.

A member of the jazz ensemble "Third Stream," his teaching specialty is string bass and electric bass. He has played with several regional symphonies in the area.

Joseph D. Mixon, adjunct instructor in music.

M.M., Combs College of Music.

He is a professional guitarist in the tri-state area and teaches private lessons and class guitar.

Robert A. Nowak, adjunct instructor in music.

M.M., University of Miami.

He teaches percussion and directs the Percussion Ensemble.

Lawrence Oncley, adjunct instructor in music.

Ph.D., Indiana University.

He teaches applied cello and performs with the Reading Symphony and the Susquehanna String Quartet.

Jeffrey S. Riehl, adjunct instructor in music.

M.M., Westminster Choir College.

Teaching class voice and private lessons, he is active as choral conductor and tenor soloist in community and church music.

Thomas M. Strohman, adjunct instructor in music.

B.S., Lebanon Valley College.

He directs the college jazz band and the small jazz ensemble, and teaches jazz improvisation and saxophone. A founding member of the jazz ensemble, "Third Stream," he has recorded for Columbia Artists. He maintains an active career performing and teaching in the Central Pennsylvania area.

John J. Uhl, lecturer in sound recording technology, director of the Sound Recording Technology Program.

B.S., Lebanon Valley College, Professional Certificate, Institute of Audio Research.

His teaching interest is sound recording technology.

Department of Physical Education

Although the college does not offer a major in physical education, two courses are required for graduation. The program encourages attitudes and habits of good health, while developing physical capacities and skills that will enrich life.

Course descriptions in physical education are on page 108.

Faculty:

O. Kent Reed, associate professor of physical education. Chairperson.

M.A. in Ed., Eastern Kentucky University.

He instructs the fitness and weight training classes and utilizes body fat percentages, pulse rate and recovery, strength testing devices and workout charts. He also instructs team activities such as softball and volleyball. Responsibilities in the athletic department are track and field and cross country.

Department of Physics

The program in physics is designed to develop an understanding of the fundamental laws of physical science dealing with motion, forces, energy, heat, sound, light, electromagnetism, electronics, atomic and nuclear structure, and the properties of matter. Physics gives an appreciation of the extent and limitations of a mathematical description of the physical world. Students major in physics as a preparation for professional careers in physics, engineering, secondary teaching, and careers for which a physical science background is useful.

The facilities of the Physics Department are located on the fourth floor of the Garber Science Center. In addition to the introductory physics laboratory, the department maintains an x-ray laboratory, optics laboratory, atomic laboratory, electronics laboratory, and nuclear laboratory. The department also houses a reading room, student shop, and darkroom.

Students majoring in physics take advantage of close contact with faculty, work as lab assistants, pursue independent study or research, and participate in the local chapter of the Society of Physics Students.

For Cooperative Programs, see page 25. For the major and course descriptions in physics, see page 109.

Faculty:

Michael A. Day, associate professor of physics.

Ph.D., University of Nebraska.

He has two doctorates: one in physics, one in philosophy, and publishes in both areas. His interests are theoretical physics (specializing in anharmonic solids) and philosophy of science.

Barry L. Hurst, associate professor of physics. Chairperson.

Ph.D., University of Delaware.

His background in sputtering involves investigating the material ejected from ion bombarded surfaces using the technique of secondary ion mass spectrometry. Other interests include electronics and experimental design.

J. Robert O'Donnell, professor emeritus of physics.

M.S., University of Delaware.

He is interested in the physics of music, including the acoustical properties of the guitar.

Jacob L. Rhodes, professor emeritus of physics.

Ph.D., University of Pennsylvania.

His background is nuclear physics with interests in the relationship of physics and society.

Department of Political Science and Economics

The department consists of two independent disciplines, political science and economics, which have separate majors and curricula.

Political scientists study government and politics with a particular interest in the political behavior of individuals, groups, and institutions. Many pre-law students major in this

Faculty contact with the private and public sectors of the economy can assist students in establishing internships and future job contacts.



discipline (see page 113 for offerings in the pre-law program). Other majors have gone on to graduate school or careers in politics.

Economists study the behavior of the economic system and economic factors in that system. Graduates in one of the two economics majors may go on to graduate school or to jobs in the private sector or government.

Both disciplines emphasize an understanding of the public policy process. They are designed to provide a sound knowledge of essential principles and problems within a broad liberal arts education.

For the major and minor requirements and course offerings in political science, see page 110. For those in economics, see page 72.

Faculty:

D. Eugene Brown, professor of political science.

Ph.D., State University of New York at Binghamton.

Dr. Brown teaches principally in the area of international studies. He is the author of a number of articles, papers and book chapters, as well as a book on the foreign policy role of Senator J. William Fulbright. From 1989–1991 he was Visiting Professor of Foreign Policy at the U.S. Army War College.

Paul A. Heise, assistant professor of economics.

Ph.D., New School for Social Research.

Dr. Heise's chief areas of interest are international economics and the history of economic thought. He has served in several positions in the Executive Office of the President.

Jeanne C. Hey, assistant professor of economics.

Ph.D., Lehigh University.

Dr. Hey's specialty areas are in economic theory, econometrics, environmental economics, and health economics. Her professional affiliations include the American Economic Association, the American Finance Association, and the Association for Evolutionary Economics.

Edward H. Krebs, assistant professor of economics.

Ph.D., Michigan State University.

Professor Krebs previously served as an Economic Assistant to the Secretary of Agriculture and as a private consultant. His interests are in environmental and resource economics. He is presently serving in the Pennsylvania Legislature and has a two year leave of absence.

John D. Norton, professor of political science. Chairperson.

Ph.D., American University.

Dr. Norton teaches courses in American government, constitutional law, political theory, and research methods. He is the pre-law adviser for the college. His professional and research interests are in the areas of American Constitutionalism, United States defense and security policy, and political economy.

Department of Psychology

The goal of psychology is the scientific description and explanation of behavior. This goal is approached in diverse ways: from laboratory experiments on animal behavior at one extreme, to clinical interventions having therapeutic behavioral objectives at the other. This diversity makes psychology important to fields such as business, education, and medicine, and makes it an integral part of any liberal arts education.

The undergraduate major in psychology at Lebanon Valley College incorporates many aspects of psychology. It includes elements of a general education as well as elements more specially tailored to each student's career training. Some students completing the major have gone on to prestigious graduate schools while others have utilized their undergraduate training to take jobs in their specialty areas immediately upon graduation. The departmental degree requirements are sensitive to this career diversity.

The courses required of all psychology majors, include: The Individual and Society (PSY 100), Experimental Psychology (PSY 120), Advanced General Psychology (PSY 200), Psychological Statistics (PSY 216), and the History of Psychology (PSY 443). These courses provide a firm foundation for specialization in any of the content areas of psychology.

The student majoring in psychology is also required to specialize in one of four content areas:

- (1) clinical/counseling/school psychology
- (2) experimental psychology
- (3) developmental psychology
- (4) industrial/organizational psychology

The three required courses in an area of specialization are intended to link the liberal arts background to specific career goals.

In addition to these general and specialized courses, all psychology majors are encouraged to participate in the educational process beyond the classroom through independent studies, laboratory research, and internships. The department is committed to providing opportunities for work experiences as a component of the psychology major.

The major, minor and course descriptions in psychology are on page 114. The major and course descriptions in psychobiology, jointly offered with the Biology Department, are on page 113.

Faculty:

Salvatore Cullari, associate professor of psychology.

Ph.D., Western Michigan University.

His teaching interests are in clinical psychology, abnormal, personality, and social psychology. His current research is in schizophrenia, personality assessment and eating disorders.

David Lasky, professor of psychology. Chairperson.

Ph.D., Temple University.

Organizational behavior, research design, and career counseling are the focus of his teaching interests. Current research is in organizational change in the public sector and patients' rights.

Jan Pedersen, assistant professor of psychology.

Ph.D., State University of New York at Stony Brook.

Her teaching interests cover a broad range of infant, child, and adolescent development, including cognition, socialization, and school-related issues. Her current research interests are the development of rule categorization systems, social conflict, and sex role identity within specific ecological contexts.

Steven M. Specht, assistant professor of psychology.

Ph.D., State University of New York at Binghamton.

His teaching interests include statistics and experimental design as well as a variety of areas in psychobiology. His current research interests are the ontogeny of physiological controls of ingestive behaviors and general psychopharmacological issues related to neuroscience.

Michael Asken, adjunct associate professor of psychology.

Ph.D., University of West Virginia.

His teaching interests are in sport psychology and health psychology. His current research interests are in sport psychology and the management of stress in surgery. He is in private practice as a health psychologist.

Dennis Graybill, adjunct assistant professor of psychology.

M.A., Temple University.

His teaching interests are in behavior modification, abnormal psychology, hypnosis, and brief therapy. He is in private practice as a licensed psychologist.

Janet Kelley, adjunct assistant professor of psychology.

Ph.D., Pennsylvania State University.

Her teaching interests are in abnormal, clinical, social psychology and lifespan adjustment problems. She is a clinical psychologist in private practice.

Joseph Peters, adjunct associate professor of psychology.

Ph.D., Pennsylvania State University.

He supervises the internship students. His research interests are in clinical psychology and computer applications to patient management. He is a clinical psychologist at a veterans administration hospital.

David Rogers, adjunct assistant professor of psychology.

Ph.D., Rosemead School of Psychology.

His teaching interests are in child and adolescent psychology. He is a private practitioner.

David Thompson, adjunct assistant professor of psychology.

Ph.D., Pennsylvania State University.

Teaching interests are in educational and school psychology, and adjustment problems of students. He is Director of Psychological Services at a private school.

Ford Thompson, adjunct assistant professor of psychology.

M.A., George Washington University.

His teaching interests are in organizational behavior. He is the state's acting deputy secretary for mental health.

Richard Tushup, adjunct assistant professor of psychology.

Ph.D., University of Delaware.

His teaching interests are in experimental psychology. Some of his areas of interest are human sexuality, client cognitions between therapeutic encounters, and religion's impact upon personality development and therapeutic process. He is currently employed at The Veterans Administration Medical Center.

Department of Religion And Philosophy

The study of religion is designed to give students insight into the meaning of the religious dimension of human experience. Course work in religion introduces students to the various historical and contemporary expressions of the Judeo-Christian heritage as well as to the diverse religious traditions of humankind.

The study of philosophy directly involves the student in the process of sharpening critical and analytical abilities. Philosophy courses examine some of the greatest perennial questions of values, knowledge, reality and their relation to human nature.

A major in religion or philosophy may be combined with a major or minor in another subject. Many majors go on to advanced study in graduate or professional schools and seminaries. Our graduates have pursued a wide variety of careers in education, law, ministry and business.

The major, minor, and course requirements in philosophy are on page 106. Those in religion are on page 117.

Faculty:

Donald E. Byrne Jr., professor of religion and history.

Director of American Studies Program.

Ph.D., Duke University.

His scholarship has focused on American folk religion, particularly as expressed in the Methodist and Roman Catholic communities. Other interests include religion and literature, peace studies, and mysticism. His teaching centers on the history of Christianity and religion in America, and he also participates in the College Honors program.

John H. Heffner, professor of philosophy. Chairperson.

Ph.D., Boston University.

His teaching interests include logic, philosophy of religion, metaphysics, and history of philosophy. He has published articles in major journals and contributed chapters to books in his research specialization, the philosophy of perception. His recent interest in the philosophy of religion has focused on biblical literature and nineteenth century philosophical theology.

Warren K.A. Thompson, associate professor of philosophy.

M.A., University of Texas, Austin.

His teaching specialties are philosophical ethics, bioethics, and business and organizational ethics. He has a particular interest in the ethical implications of the Holocaust, and has recently contributed a chapter for an anthology devoted to philosophy and the Holocaust.

Perry J. Troutman, professor of religion.

Ph.D., Boston University.

His areas of teaching specialization include world religions, religion in America, and the theory and practice of Christian education. He has particular interests in English cathedrals, and he is organizer and Chair of the American Friends of Durham Cathedral.

Blake D. Dutton, adjunct assistant professor of religion and philosophy.

Ph.D. Candidate, University of Pennsylvania.

His research interests are focused in medieval thought.

Donald C. Hoepfer, adjunct instructor in philosophy.

M.A., The Pennsylvania State University.

He specializes in the history of philosophy and is a doctoral candidate at Temple University.

John E. Pogue, adjunct instructor of philosophy.

M.A., Tufts University.

He is a doctoral student at University of Massachusetts, Amherst, with a concentration in analytic philosophy.

Steven J. Snyder, adjunct assistant professor of religion.

M.Div., Gordon-Conwell Theological Seminary.

He teaches courses in Biblical literature, and his interests include various aspects of contemporary religion and society.

Department of Sociology and Social Work

The major in sociology gives students an understanding of human behavior. By examining the social and cultural forces that shape our lives, students gain a richer understanding of themselves and contemporary social issues. Sociology explores how and why people behave as they do as well as the effects of their behavior on others. In an economy that is moving from a manufacturing base to a service orientation, graduates in sociology are prepared to work in fields where an understanding of the dynamics of human relationships is important.

The social work minor helps to prepare students for beginning professional practice in a variety of social work settings. The minor emphasizes the generalist approach by offering a solid foundation of core courses based on social work theory and practice. The program also provides students the opportunity to focus upon areas of personal and professional interest by choosing a concentration in such areas as criminal justice, family intervention, and the aged and aging/death and dying.

The minor and course descriptions in social work are on page 120. Those in sociology are on page 121.

Faculty:

Sharon Darmofall Arnold, associate professor of sociology.

M.A., University of Akron.

Among her teaching interests are sociology of the family, intercultural communication, small groups, and medical sociology. Her research interests are achievement orientation of female students and the use of telecommunications in higher education.

Carolyn R. Hanes, professor of sociology and social work. Chairperson.

Ph.D., University of New Hampshire.

Her areas of interest include family and marriage, criminology, criminal justice, mass media, and leadership. She is currently doing research on leadership.

Sharon Hall Raffield, associate professor of sociology and social work.

M.S.W., Washington University.

Her areas of interest include social work practice with families, children, and elders as well as policies which impact upon them. She is currently doing research in social work theory of practice and social work educational curriculum.

Robert D. Gingrich, adjunct lecturer in social work.

M.S., Moravian College.

His teaching specialties include child abuse, juvenile delinquency and sexual abuse.

Marianne Goodfellow, adjunct lecturer in sociology.

M.A., The Pennsylvania State University.

Holly L. Preston, adjunct lecturer in sociology and social work.

M.S.W., Marywood College.

UNDERGRADUATE DEGREE REQUIREMENTS AND COURSE DESCRIPTIONS

Accounting (ACT)

The Management Department is described on page 41.

Degree: Bachelor of Science with a major in accounting.

Major: ACT 151, 152, 233, 251, 252, 353; 9 credit hours accounting electives; ECN 110, 120; MGT 222, 330, 361, 485; ENG 210; MAS 150 (or 111 or 161); MAS 170 (or 270 or 372); PHL 360 (57 credits).

Courses in Accounting

151. Principles of Accounting I. Fundamental principles and concepts of accounting encompassing business transactions, the accounting cycle, and classified financial statements including discussion of various topics relating to balance sheet and income statement items. For accounting majors. Credit not awarded for both ACT 151 and ACT 161. 3 credits.

152. Principles of Accounting II. A continuation of Principles of Accounting I focusing upon accounting concepts, partnerships, and business transactions related to corporate liabilities, equity, and investments. Includes basic financial analysis. For accounting majors. Prerequisite: ACT 151; or ACT 161 with minimum grade of B and permission. A student must attain a grade of "C-" or above in ACT 151 as a prerequisite for this course. 3 credits.

161. Financial Accounting. Basic concepts of accounting including accounting for business transactions, preparation and use of financial statements, and measurement of owners' equity. An introductory course for non-accounting majors. Credit not awarded for both ACT 151 and ACT 161. Prerequisite: sophomore standing or permission. 3 credits.

162. Managerial Accounting. Cost-volume-profit relationships, cost analysis, business segment contribution, profit planning and budgeting as a basis for managerial decision making. Prerequisite: ACT 151 or ACT 161; sophomore standing or permission. A student must attain a grade of "C-" or above in ACT 161 as a prerequisite for this course. 3 credits.

233. Personal Computer Applications in the Business and Economic Environment. An introduction to personal computers and their use as a business management tool. Through classroom instruction and laboratory exercises the student learns commonly used business applications. Topics covered include word processing, electronic spreadsheets, database management, business graphics, decision support systems, and integrated accounting packages. Prerequisite: ACT 151 or 161, ECN 110 or 120, or permission. 3 credits. {Cross-listed as Economics 233 and Management 233.}

251. Intermediate Accounting I. An advanced course in accounting principles stressing the environment and the conceptual framework of financial accounting, statement presentation, revenue recognition, and valuation problems in accounting for assets. Prerequisite: ACT 152. A student must attain a grade of “C–” or above in ACT 152 as a prerequisite for this course. 3 credits.

252. Intermediate Accounting II. An analysis of financial statements, effects of errors and changes on statements, preparation of funds flow statement, and valuation problems in accounting for leases and pensions and stockholders’ equity. Prerequisite: ACT 251. 3 credits.

351. Advanced Accounting. Study of theory and standards with application to such special topics as income presentation, interim reporting, and per–share disclosures. Emphasis on business combinations and consolidated financial presentations. Prerequisite: ACT 252. 3 credits.

352. Governmental and Non–Profit Accounting. Basic concepts of fund and budgetary accounting used for financial activities of governmental units and other not–for–profit organizations. Prerequisite: ACT 152. 3 credits.

353. Cost Accounting. The accumulation and recording of the costs associated with the manufacturing operation including job–order, process and standard cost systems, and joint and by–product costing. Prerequisite: ACT 152. 3 credits.

451. Individual Income Tax. Analysis of the federal income tax laws as applied to individuals; case problems, preparation of returns. Prerequisite: ACT 152 or 161. 3 credits.

452. Corporate Income Tax. Analysis of the federal income tax laws as applied to corporations, partnerships and fiduciaries; case problems, preparation of returns. Prerequisite: ACT 451. 3 credits.

455. Auditing. A study of the process of evaluation of internal controls and interpretation of financial information to permit an auditor to express a professional opinion on financial reports. Prerequisite: ACT 252. 3 credits.

Actuarial Science (ASC)

The Mathematical Sciences Department is described on page 43.

Degree: Bachelor of Science with a major in actuarial science.

Major: Three of ASC 385, 481, 482, 484; CSC 125; MAS 111, 112, 202, 222, 371, 372, 471 and one of MAS 363 or 335; ECN 110, 120; ACT 151, 152 or 161, 162. (52 credits.) The Course 100/ Part I examination of the actuarial societies must be passed before the end of the semester preceding the graduation semester.

Courses in Actuarial Science

385. *The Theory of Interest.* Measurement of interest, the time value of money, annuities, amortization and sinking funds, bonds and related securities, depreciation and capitalized cost. Prerequisite: MAS 112. 3 credits.

481,482. *Actuarial Mathematics I and II.* Survival distributions and life tables; life insurance; life annuities; net premiums; premium reserves; multiple life functions; multiple decrement models; valuation theory for pension plans; the expense factor; and non-forfeiture benefits and dividends. Prerequisite: Core. (MAS 111,112,202,222, CSC 125). Corequisite: MAS 371,372. 3 credits each.

484. *Casualty Actuarial Mathematics.* An introduction to mathematical techniques of casualty actuarial work including credibility theory, risk theory, and losses distributions. Prerequisite: Core. Corequisite: MAS 372. 3 credits.

American Studies (AMS)

The interdisciplinary program in American Studies is coordinated by the History Department which is described on page 40.

Degree: Bachelor of Arts with a major in American Studies.

Major: AMS 111, 211, 253, 311, 485; ART 205 or MSC 120; ENG 221, 222; GPY 211; HIS 321, 322, 325 or 326; PHL 240 or REL 120 (39 credits).

Minor: AMS 111, 211, 253; 1 course from the following: ART 205, ENG 221, 222, MSC 120; 1 course from the following: HIS 321, PHL 240, REL 120; 1 course from the following: AMS 311, HIS 322, 325, 326; and 1 elective course to be chosen from among courses required for the major in American Studies or approved by the Director of the American Studies Program (21 credits.)



Professors help students to understand the technological dimensions of American culture, to probe beyond the surface, to look deeper into the past.

Courses in American Studies

111. Introduction to American Studies. An interdisciplinary approach to the study of America's heritage and the distinguishing features of the American mind and character. 3 credits.

211. American Folklore. A study of the historical growth of American folklore; such genres as folk art, folk music, and folk speech; contemporary expressions, including regional and ethnic variations; and the dynamics of folk performance in socio-cultural context. 3 credits.

230. American Folk Religion. A study of the folk traditions of selected American denominations and sects and of the theological implications of secular folklore. Emphasis will be placed on field work as well as on analysis. 3 credits. {Cross-listed as Religion 230.}

253. Applied American Studies. An introduction to non-teaching careers in American Studies. Students examine the basics of archival management, museum curatorship, oral history and specialized work in government, corporations, historical societies, libraries and preservation agencies. 3 credits. {Cross-listed as History 253.}

311. American Science and Technology. A study of American science and technology and their interrelations with economic, cultural, political and intellectual developments. Prerequisite: Any laboratory science course. 3 credits.

485. American Studies Seminar. A capstone course organized around a major theme or issue in the American experience. Themes and issues vary from year to year as the seminar rotates among faculty in several academic departments. Students are able to integrate their educational experience and implement further the interdisciplinary methodology in an holistic approach to a topic or subject. 3 credits.

Art (ART)

The Art Department is described on page 29.

Minor: ART 110, 120, 201, 203, 1 elective course in art (15 credits).

Courses in Art

110. Introduction to Art. An exploration of meaning in the visual arts. The subject is approached through discussions of perception, the aesthetic experience, and form/content analyses of painting, sculpture, and architecture. 3 credits.

120. Introduction to Drawing. An introduction of the fundamentals of drawing. Students will practice seeing and rendering the contour line, the gestural line, mass and volume, texture, negative space and linear relationships. A variety of drawing media will be explored. 3 credits.

201. Art History I. Prehistoric through Medieval Art. A survey of painting, sculpture and architecture beginning with prehistoric sites in Europe and the Near East, followed by studies of ancient Egypt, Mesopotamia, Greece, Rome and Europe in the Middle Ages. 3 credits.

203. Art History II. Renaissance to twentieth century. A survey of individual masters and their major schools, the course covers the period from the close of the medieval era to the modern day and includes stylistic analyses and historical contexts for painting, sculpture, and architecture of each period. 3 credits.

205. American Art History. An examination of the architecture, painting, sculpture, and the decorative arts from the colonial period to the present day with emphasis on the twentieth century. 3 credits.

401. Art in the Elementary School. Introduction to creative art activity for children in elementary school. Topics covered include philosophical concepts, curriculum, evaluation and studio activity involving a variety of art media, techniques, and processes. 3 credits.

Biochemistry (BCH)

The program in biochemistry is offered jointly by the Biology Department, described on page 30 and the Chemistry Department, described on page 32.

The major in biochemistry is an interdisciplinary program that provides an opportunity for interested students to engage in a comprehensive study of the chemical basis of biological processes. It is designed to prepare students for advanced study in medical, dental, and other professional schools, for graduate programs in a variety of subjects including biochemistry, clinical chemistry, pharmacology, molecular biology, genetics, microbiology, and physiology, and for research positions in industrial, academic, and government laboratories.

Degree: Bachelor of Science with a major in biochemistry.

Major: BIO 111, 112, 201; CHM 111, 112, 113, 114, 213, 214, 215, 216; BCH 401, 421, 422, 430, 499; MAS 161; PHY 103, 104 or 111, 112 (51 credits); 9 credits from BIO 305, 306, 307, 322, 323, 404 and CHM 305, 306, 307, 308, 311.

Courses in Biochemistry

401. Molecular Biology. Gene structure, function and regulation at the molecular level in prokaryotic and eukaryotic organisms. Recombinant DNA techniques (genetic engineering) and gene sequencing are covered in detail. Prerequisite: Three semesters of chemistry and BIO 201 or permission of the instructor. 4 credits.

421, 422. Biochemistry I, II. The study of the chemistry of proteins, lipids, and carbohydrates. Topics covered include amino acid chemistry, protein structure, molecular weight determination, ligand binding, enzyme kinetics, enzyme and coenzyme mechanisms, membrane

systems, membrane transport, intermediary metabolism, metabolic control, electron transport, and oxidative phosphorylation. Prerequisites: CHM 214, 216 and 312 or permission. 3 credits per semester.

430. Biochemistry Laboratory. Investigations of the properties of proteins, nucleic acids, carbohydrates, and lipids. Prerequisites: CHM 214, 216. 1 credit.

499. Biochemistry Seminar. Readings, discussions, and reports on special topics in biochemistry. 1 credit.

Biology (BIO)

The Biology Department is described on page 30.

Degree: Bachelor of Science with a major in biology.

Major: BIO 111, 112, 201, 499; one course each in the general areas of physiology, cellular and subcellular biology, botany, and morphology, and 4 additional hours of biology (33 credits). CHM 111, 112, 113, 114, 213, 214, 215, 216 (16 credits); PHY 103, 104 or 111, 112; MAS 161 or 111 (61–63 total credits).

Minor: BIO 101, 102, or BIO 111, 112, 201; plus 3 additional courses in biology (24 total credits).

In addition, students planning to teach biology must take BIO 312, 490 and 21 credits in education courses including EDU 110, 420, 430 and 440. These courses are described on pages 74 and 119.

Courses in Biology

BIO 111 and 112 are prerequisite for all upper-level courses in biology unless otherwise noted.

101. Human Biology I. The human organism is utilized as the primary focus to elucidate physiological principles for non-science majors. Topics include nutrition, homeostasis, major organ systems, immunity, and exercise physiology. Laboratory exercises include sensory physiology, respiration, blood pressure, exercise physiology, and ECG. 4 credits.

102. Human Biology II. Also designed for the non-science major, this course emphasizes the mastery of certain biological principles as applied primarily to humans. Topics include reproduction, development, classical and molecular genetics, and ecology. Laboratory exercises supplement lecture topics and include an examination of mitosis and meiosis, *Drosophila* genetics, gene activity, population genetics, and development. 4 credits.

103. Environmental Science. Designed for non-science majors, the course serves as an

introduction to ecological principles and their applications to understanding the causes and current status of environmental problems. Options for dealing with these problems are evaluated. Possible topics for discussion are overpopulation, food and water resources, ozone depletion, global warming, deforestation, acid rain, biodiversity, erosion, loss of wetlands, energy sources, pollution, eutrophication and waste disposal. Laboratory exercises are designed to illustrate ecological concepts presented in lecture. 4 credits.

111. General Biology I. A rigorous study of basic biological principles, which is designed for science majors. Topics emphasized include cell biology, genetics, taxonomy, histology, and evolution. Laboratory exercises include enzyme kinetics, carbohydrate analysis, isolation and identification of plant pigments, histological techniques, and animal taxonomy. 4 credits.

112. General Biology II. This course, also rigorous and designed for science majors, covers concepts in physiology, embryology, botany and ecology. Laboratory exercises include shark anatomy, invertebrate dissection, animal development, plant development in angiosperms, and stomate response to environmental changes. 4 credits.

201. Genetics. A study of the principles, mechanisms and concepts of classical and molecular genetics. The laboratory stresses key concepts of genetics utilizing both classical and molecular approaches. Laboratory exercises include analysis of nucleic acids, genetic crosses, and studies of bacteria, bacteriophages and plasmids. Prerequisites: one year of chemistry or permission. 4 credits.

221. Comparative Vertebrate Anatomy. The comparative anatomy of vertebrates with emphasis on the evolutionary relationships among the various lines of vertebrates. Intensive laboratory work involves dissections and demonstrations of representative vertebrates. 4 credits.

302. Survey of the Plant Kingdom. The development and diversity of plants and the relationships between them. Field and laboratory work will familiarize the student with the structure of plants and with the identification of flowering plants in the local flora. Prerequisite: BIO 112 or permission. 4 credits.

304. Developmental Biology. An organismal and molecular approach to the study of animal development using typical invertebrate and vertebrate organisms. The laboratory includes the study of slides as well as experiments on fertilization, regeneration and metamorphosis. 4 credits.

305. Vertebrate Histology and Microtechnique. A study of the microscopic anatomy of vertebrate tissues, with illustrations of basic tissue similarities and specialization in relation to function. The laboratory work includes the preparation of slides utilizing routine histological and histochemical techniques. 4 credits.

306. Microbiology. A study of the morphology, physiology, and biochemistry of represen-

tative microorganisms. The laboratory emphasizes basic bacteriological techniques and procedures. Prerequisite: three semesters of chemistry or permission. 4 credits.

307. Plant Physiology. A study of the functioning of plants, with emphasis on vascular plants. Prerequisite: three semesters of chemistry or permission. 4 credits.

312. Fundamentals of Ecology. An examination of the basic concepts of ecology with extensive laboratory work and field experiences in freshwater, marine, and terrestrial ecosystems. Prerequisites: BIO 112 or permission. 4 credits.

322. Animal Physiology. A study of the principles of vertebrate body function, with emphasis on the mechanisms by which cells and organs perform their functions and the interactions of the various organs in maintaining total body function. Prerequisites: BIO 101 or 112 and one semester of chemistry, or permission. 4 credits.

323. Introduction to Immunology. An introduction to the anatomical, physiological, and biochemical factors underlying the immune response. The course begins with a discussion of non-specific immunity, cellular immunity, and antibody-mediated immune responses. The course then moves into a study of contemporary immunological topics which are discussed with respect to major research papers in each area. Topics include auto-immunity, histocompatibility, immunogenetics, and acquired immune deficiencies. A research paper is required. Prerequisites: BIO 111,112 and CHM 111,113 or equivalent or permission. 4 credits.

402. Invertebrate Zoology. A study of most of the invertebrate phyla, concentrating on movement, metabolism, information and control, reproduction and association between animals. 4 credits.

404. Electron Microscopy. An introduction to the use of techniques for scanning and transmission electron microscopic studies. Through laboratory experience the students will learn the proper use, application, and limitations of the appropriate instruments. Prerequisite: BIO 305 or permission of instructor. 4 credits.

409. Quantitative Ecology. An intensive study of ecological processes emphasizing the quantitative aspects of ecology at the population and community levels. Prerequisite: permission of the instructor. 4 credits.

490. Student Lab Instruction. A course designed for students seeking certification to teach biology in secondary education. Responsibilities include assisting in the preparation of materials and equipment for lab; supervision of lab work; and preparation, administration, and evaluation of quizzes and lab tests. Prerequisite: permission of the instructor. 1 credit.

499. Seminar. Each senior student is required to do independent library research on an assigned topic and to make an oral presentation to the biology faculty and students. This course may be repeated. 1 or 2 credits.



Interaction of faculty is an important facet for preparing students for careers in science.

Chemistry (CHM)

The Chemistry Department is described on page 32.

Degrees: Bachelor of Science in Chemistry, Bachelor of Science with a major in chemistry.

Majors: (B.S. in Chemistry) CHM 111, 112, 113, 114, 213, 214, 215, 216, 222, 305, 306, 307, 308, 311, 312, 321, 322, 411; 6 Credits from CHM 491–498 or 590 or BCH 421, 422; 4 credits of CHM 500; MAS 161, 162; PHY 111, 112 (63–64 credits).

(B.S., major in chemistry) CHM 111, 112, 113, 114, 213, 214, 215, 216, 222, 305, 306, 307, 308, 311, 312, 321, 322; MAS 161, 162; PHY 111, 112; (50–51 credits).

Minor: CHM 111, 112, 113, 114; 12 Credits from CHM 213, 214, 222, 305, 306, 311, 312, 411 or BCH 421, 422; 3 Credits from CHM 215, 216, 307, 308, 321, 322 or BCH 430.

Courses in Chemistry

100. Introduction to Chemistry. An introduction to the principles of chemistry including mathematical tools, atomic structure, stoichiometry, elementary concepts of equilibrium, bonding, and organic chemistry. Intended for non-science majors. Laboratory experience included. 4 credits.

109. Chemical Skills. A step-by-step approach to solving chemical problems. Topics include the application of mathematical tools in introductory chemistry and techniques for finding the proper approach to solve problems. The course is designed to be taken concurrently with CHM 111. 1 credit.

111, 112. Principles of Chemistry I,II. An introduction to chemistry for the science major. First semester topics include atomic and molecular structure, chemical reactions, calcula-

tions involving chemical concentrations, gas laws, and bonding. Second semester covers kinetics, acids and bases, equilibrium, oxidation–reduction chemistry, thermodynamics, electrochemistry, and nuclear chemistry. 3 credits per semester.

113, 114. Introductory Laboratory I,II. Laboratory courses to accompany 111 and 112. Experiments cover stoichiometry, gas laws, quantitative analysis, equilibrium, electrochemistry, chemical synthesis, and the use of computers for collecting data. Students are introduced to instrumentation including infrared, UV–visible, NMR and atomic absorption spectrometers. 1 credit per semester.

213, 214. Organic Chemistry I,II. An introduction to the principles of organic chemistry. The focus of the course is on the structure of organic molecules and how the structure of various functional groups affects their reactivity. The concepts of reactivity, structure and mechanism are applied to organic synthesis. 3 credits per semester.

215, 216. Organic Laboratory I,II. An introduction to the practice of classical organic chemistry and modern instrumental organic chemistry. The techniques of organic synthesis are taught along with instrumental methods including infrared, nuclear magnetic resonance, and mass spectrometry. 1 credit per semester.

222. Introductory Inorganic Chemistry. The application of elementary principles of chemistry to provide a basis for understanding the physical and chemical properties of the elements. Topics include periodicity, acidity or basicity of metal cations and oxoanions, precipitation reactions, oxidation–reduction chemistry and the structures of solids. 3 credits.

305. Analytical Chemistry. Gravimetric, volumetric, and electro–chemical methods of chemical analysis covered. Includes statistical methods of data treatment and rigorous considerations of complex chemical equilibria. Prerequisites: CHM 112 and MAS 161. 3 credits.

306. Instrumental Analysis. Basic types of chemical instrumentation and their applications in analytical chemistry are examined. These include: gas and liquid chromatography; infrared, UV–VIS, fluorescence, atomic absorption, and plasma emission spectrophotometry; nuclear magnetic resonance and mass spectrometry; and radiochemical methods. Prerequisites: CHM 112 and MAS 161. 3 credits.

307. Quantitative Analysis Laboratory. Techniques of gravimetric, volumetric, and electro–chemical analysis are applied to the analysis of unknowns. Prerequisite or corequisite: CHM 305. 1 credit.

308. Instrumental Analysis Laboratory. Chemical instrumentation is utilized in analytical method development and analysis. Prerequisite or corequisite: CHM 306. 1 credit.

311. Physical Chemistry I. The study of thermodynamic laws and functions, including phase and reaction equilibria. Systems under study include ideal and real gases, ideal and non–ideal solutions, and multi–component phase transitions. 3 credits.

312. Physical Chemistry II. The study of chemical systems from a molecular perspective. Basic concepts of quantum chemistry and statistical theory applied to atomic and molecular structure. Also included are electrochemistry, kinetics, and transport processes. 3 credits.

321, 322. Physical Laboratory I, II. Application of chemical instrumentation to a study of the principles of physical chemistry. Experimental work involves calorimetry, refractometry, conductivity, viscometry, and atomic absorption, FTIR, UV-VIS, and NMR spectroscopy applied to the study of phase and reaction equilibria, kinetics, and atomic and molecular structure. 1 credit per semester.

411. Advanced Inorganic Chemistry. A study of bonding theories, molecular structure, spectroscopy, and reaction mechanisms with special emphasis on transition metal complexes. Prerequisite: CHM 312. 3 credits per semester.

451. Methods of Teaching Chemistry. A course designed for students seeking certification to teach chemistry in secondary education. Topics include evaluation of laboratory experiments, demonstrations, textbooks, and computer software. 3 credits.

Communications

See English, page 37.

Computer Science (CSC)

The Mathematical Sciences Department is described on page 43.

Degree: Bachelor of Science degree with a major in applied computer science; Bachelor of Science degree with a major in computer science.

Major: (Applied Computer Science) CSC 125, 148, 247, 282, 321, 323, 325, 448, 481 or 344, 400 or 500; ENG 210 or 216; MAS 111 or 161, 251, 270; 15 coordinated hours in an area of computer application to be arranged with adviser (51–53 credits).

Major: (Computer Science) CSC 125, 148, 247, 282, 321, 323, 325, 344, 481, 482 or 448, 400 or 500; ENG 210 or 216; MAS 111, 112, 202, 222, 251, 270 (52 credits).

Minor: (Computer Science) CSC 125, 148, 247, 282, and one CSC course numbered 300 or higher; MAS 161, 251 (21 credits).

Note: No course outside of the core (MAS 111, 112, 202, 222, CSC 125) may be used to meet the requirements of more than one major or minor within the Department of Mathematical Sciences.

Courses in Computer Science

125. *Computer Tools: An Introduction to Computer Science.* Introduction to fundamental concepts of computer science through exploration of application software. Topics include: information storage, retrieval, and communication, user interfaces, algorithms, spreadsheet, data bases, and expert systems. 3 credits.

148. *Computers and Programming in Pascal.* Introduction to programming in Pascal. Prerequisite: CSC 125. 3 credits.

170. *Computers and Programming in Basic-Plus.* Introduction to the basic concepts and terminology of computer hardware, software, operating systems and languages. Programming in Basic. Cannot be used toward a major in computer science or applied computer science. 3 credits.

247. *Advanced Programming with Pascal.* Advanced features of Pascal. Structured types, multiple modules, and libraries. Prerequisite: CSC 148. 3 credits.

282. *Data Structures.* Lists, stacks, queues, trees, tables and networks. Prerequisite: CSC 247, MAS 251. 3 credits.

321, 323, 325. *Survey of Computer Languages: FORTRAN, COBOL, and C.* Syntax, mechanics of writing programs, and evaluation of the languages. Offered in three segments for 1 credit each. Prerequisite: CSC 148.

344. *Computer Architecture with MACRO.* The organization of computers. Topics include instruction sets, registers, memory, devices and interrupts. Prerequisite: CSC 247. 3 credits.

448. *Database Management.* Database structure and implementation. Prerequisite: CSC 282. 3 credits.

481,482. *Advanced Topics in Computer Science I,II.* Topics to be selected from current areas of interest and concern in computer science. Possible topics include graphics, compiler construction, operating systems, networks, and artificial intelligence. Prerequisites: CSC 282, MAS 251. 3 credits per semester.

Criminal Justice Program

For students interested in the field of Criminal Justice (including police work, counseling juvenile offenders, court assistants, probation work, and other areas), the courses listed below constitute the Criminal Justice program. The chairs of the Sociology and Social Work and the Political Science and Economics Departments function as advisers for this program. Interested students should consult with one of these advisers.

There is no major or minor in Criminal Justice, but the program can be most easily combined

with a major in political science or sociology. However, the program is not confined to majors in these areas.

The courses required are as follows: PSC 112,315,316,415; SOC 110,331,333; one of the following: SOC 278, SOC 371, SOC 372; six credits of PSC, PSY, SOC, or SWK 400. (30 credits.)

Economics (ECN)

The Political Science and Economics Department is described on page 53.

Degrees: Bachelor of Science and Bachelor of Arts with a major in economics.

Major: Bachelor of Science: ECN 110, 120, 201, 203, 222, 233, 312, 2 elective courses in economics; ACT 161, 162; CSC 147 or 170; ENG 210; MAS 150 or 161 or 111; MAS 170 or 270 or 372; MGT 330, 485; PHL 360 (54 credits).

Major: Bachelor of Arts: ECN 110, 120, 201, 203, 312, and four additional elective courses in economics, ACT 161, MAS 150 or 161 or 111, MAS 170 or 270 or 372 (36 credits).

Minor: Bachelor of Science: ECN 110, 120, 201, 203, 312; one from ACT 161, MGT 100, or one elective course in economics (18 credits).

Minor: Bachelor of Arts: ECN 110, 120, 201, 203, 312, and one additional elective economics course (18 credits).

Courses in Economics

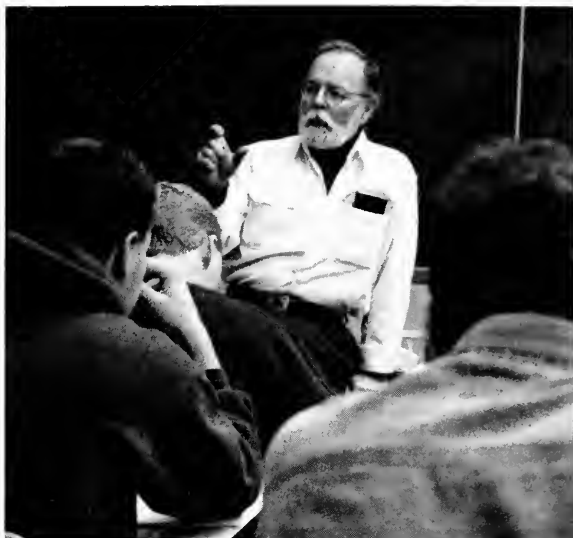
110. Principles of Economics I. An introductory study of macroeconomic principles, with emphasis on national income determination, the price level, employment, economic growth, money and banking, and government monetary and fiscal policies. 3 credits.

120. Principles of Economics II. An introductory study of microeconomic principles, with emphasis on price, production, and distribution theories under conditions of varying market structures. Factor market analysis as well as implications for welfare economics and public policy are considered. 3 credits.

130. Economics of Public Issues. A survey and economic analysis of current public issues. 3 credits.

201. Intermediate Microeconomic Analysis. Managerial and economic decision-making of business firms, with emphasis on sales, costs, profit, and resource allocation. Pareto optimality and the equity-efficiency trade-off are covered. Prerequisites: ECN 110 and 120. 3 credits.

The faculty has a genuine concern for the way that economics is applied to current issues.



203. *Intermediate Macroeconomic Analysis.* A study of national income and employment theory, with primary emphasis on determination of the levels of employment and prices. The problems of unemployment and inflation are analyzed and appropriate monetary and fiscal policies considered. Prerequisites: ECN 110 and 120. 3 credits.

222. *Quantitative Methods.* An introduction to some of the quantitative methods used in modern management and economics. Topics include probability concepts, forecasting, decision theory, linear programming, queuing theory, network models, and inventory models. Prerequisites: MAS 150 and 170. 3 credits. {Cross-listed as Management 222.}

233. *Personal Computer Applications in the Business and Economic Environment.* An introduction to personal computers and their use as an economic analytical and business management tool. Topics include economic data analysis, economic graphics, and decision support systems. Prerequisites: ECN 110 and 120, or permission. 3 credits. {Cross-listed as Accounting 233 and Management 233.}

312. *Money and Banking.* Nature and functions of money and credit, including the development and role of commercial and central banking, structure and functions of the Federal Reserve System, and monetary and banking theory, policy, and practice. Prerequisites: ECN 110 and 120. 3 credits.

315. *Health Care Finance and Economics.* Analysis of the economic problems of health and medical care to determine how to provide the best health care to the most people in a cost-effective manner. Examination of the principal elements of health care, including the physician, the hospital, and the pharmaceutical industry, as well as the influence of government and the insurance industry. All economic analysis will be considered within the context of medical ethics and societal values. Prerequisite: ECN 110 and 120. 3 credits.

321. Public Finance. A study of the economic functioning of government, including principles of taxation, public expenditures, debt, and fiscal policy. Prerequisites: ECN 110 and 120. 3 credits.

332. International Economics. A study of theories and empirical analysis of international economic relations. Topics include analyses of free exchange of goods, factors, and money, restrictive trade policies, and freer economic practices. Prerequisites: ECN 110 and 120. 3 credits.

401. History of Economic Thought. The evolution of economic thought from mercantilism to the principal schools of the present. Attention is given to the evolution of the various theories of value, wages, interest, rent, profit, price level, business cycles, and employment, and to the influences of earlier economic ideas upon current thinking and policy-making. Prerequisites: ECN 110 and 120. 3 credits.

411. Economic Growth and Development. Theoretical and empirical analysis of problems of economic development in both underdeveloped and advanced countries. Prerequisites: ECN 110 and 120. 3 credits.

Education (EDU)

The Education Department is described on page 34.

The program in Elementary Education is described on page 75 and that in Secondary Education on page 119.

Minor: EDU 110, GPY 112; one of ELM 270, ELM 341, ELM 361; one of ELM 250, ELM 332, GPY 111; one of EDU 346, EDU 391, SED 420, EDU 442; ELM 280 or SED 280, 1–3 credits (16–18 credits).

Courses in Education

110. Foundations of Education. A study of the social, historical and philosophical foundations of American education correlated with a survey of the principles and theories of influential educators. 3 credits.

346. Educational Technology and Instructional Media. A study of the preparation and use of instructional technology, media, and equipment. 3 credits.

442. The Education of the Exceptional Child. An introduction to current research and practices concerning exceptionalities in children, including the handicapped and gifted. The course includes attention to policies, legislation, programs, methods and materials. Various resource personnel are invited to address pertinent issues. The course includes a minimum of one hour per week field experience in local programs designed to meet the needs of

exceptional children. Prerequisites: EDU 110, PSY 100 or PSY 120, or permission of instructor. 3 credits.

Elementary Education (Teacher Certification) (ELM)

The Education Department is described on page 34.

Degree: Bachelor of Science with a major in elementary education.

Major: Elementary education majors must take: EDU 110; ELM 220, 250, 270, 332, 341, 342, 344, 361, 362, 440, 499; ART 401; GPY 111; HIS 125 or 126; MAS 100 or equivalent; PSY 100 or 120, 220, 321 (66 credits).

The minor in education is described on page 74.

Courses in Elementary Education

220. *Music in the Elementary School.* A course designed to aid elementary education majors in developing music skills for the classroom, including the playing of instruments, singing, using notation, listening, movement, and creative applications. 3 credits. {Cross-listed as Music 220.}

250. *Mathematics in the Elementary School.* A study of basic preschool to sixth grade mathematical concepts with major emphasis on problem solving, estimating, and computers. The course is designed to view mathematics as a multidisciplinary subject. Attention is given to the development of hands-on teaching activities, simulations, and experiences which can be utilized effectively with any classroom population. 3 credits.

260. *Principles and Practices in Early Childhood Education.* An introduction to contemporary research, theories, programs, curricula, methods, and materials in early childhood education, nursery school through grade 2. Includes required field experience in a local early childhood center. 3 credits.

270. *Children's Literature.* A study of literature for children from infants through grade 8, including extensive classroom examination of books, poetry, storytelling, and audiovisual resources in children's literature. 3 credits.

280. *Field Practicum in the Elementary School.* Supervised field experiences in appropriate school settings. Prerequisite: permission. 1–3 credits.

332. *The Physical Sciences in the Elementary School.* A study of basic concepts in general science, earth and space science, physical and biological science, and environmental studies. The course emphasizes the experiential nature of science in the elementary classroom with special attention to the materials and methodologies appropriate to young children. 3 credits.

341, 342. *Teaching of Reading I, II.* The fundamentals of teaching children to read from the readiness programs of early childhood education to the more comprehensive techniques required to teach reading in all subject areas of the curricula in elementary and middle schools. Effective reading programs, methods, and materials are examined first hand. Includes during each semester one hour per week of tutoring of selected elementary school students. Prerequisite: ELM 270. 3 credits per semester.

344. *Health and Safety Education.* A study of basic health and safety practices and procedures as applied to the elementary school, including a program of physical education for elementary school children, an American Red Cross–approved program of first aid, and an evaluation of sources and use of materials. Prerequisites: EDU 110; PSY 220; Elementary Education major. 3 credits.

361. *Language Arts in the Elementary School.* The content, methods and materials for teaching oral and written language beginning with early childhood: listening, speaking, creative and practical writing, as well as the related skills of creative dramatics, handwriting, grammar and usage. The course is designed to assist teachers in helping children to communicate effectively and responsibly in a creative manner. 3 credits.

362. *Social Studies in the Elementary School.* An examination of the content, methods and role of social studies in the elementary school, beginning with early childhood. The curriculum is examined from two vantage points: the daily lives of children as they relate to developing values and attitudes and the planned study of people as they live and have lived in our world. The development of a teaching unit and the examination of learning resources contribute to a sound instructional program. 3 credits.

440. *Student Teaching.* Each student spends an entire semester in a classroom of an area public school under the supervision of a carefully selected cooperating teacher. Open to seniors only. A cumulative grade point average of 2.00 during the first six semesters of college is required. Prerequisites: EDU 110; PSY 220; ELM 250,270,332,341,342,361,362, and permission. 3–12 credits.

499. *Senior Seminar.* Special topics related to pertinent issues in education are researched and discussed by the participants in the course. Issues relating to problems in student teaching or to further professional growth in the profession are explored. 3 credits.

Engineering

The co-operative (“3 + 2”) Engineering program is described under the listing for the Cooperative Programs on page 25.

English (ENG)

The English Department is described on page 37.

Degree: Bachelor of Arts with a major in English.

Major: Core requirements: ENG 200; three from 221–228; 331; 341 or 342; 499 (21 credits). Students must choose one of the concentrations below in addition to the core.

Literature concentration: Three additional survey courses (ENG 221–228); three additional major authors (ENG 343) or special topics courses (ENG 390–399) or genre (ENG 335–339) courses (39 total credits).

Communications concentration: ENG 213; four additional communications courses (ENG 210–220, 311–315, 332, 336); 3 credits of ENG 400 (39 total credits).

Secondary Education concentration: Two additional survey courses from ENG 221–228 (must include both 221,222); three additional major authors (ENG 343) or special topics (ENG 390–399) or genre (ENG 335–339) courses; ENG 218; ENG 332; FLG 250; and either ENG 213 or ENG 336 (48 credits).

Minor (Literature): ENG 200; ENG 221 or 222; two from ENG 225, 226, 227, 228; two additional literature courses (18 credits).

Minor (Communications): ENG 200, 213, 221 or 222; three additional communications courses (18 credits).

Courses in English

101,102. English as a Second Language. Emphasis on advanced reading, writing, listening, and speaking skills for students for whom English is the second language. The second semester is a continuation of the same skills. 3 credits.

Personal attention by faculty ensures that course requirements are met.



111,112. English Composition I,II. Both semesters help the student find her or his own voice within the demands and expectations of public expression. Both courses emphasize the development of clear, organized, and rhetorically effective prose. 112 also emphasizes reading and research skills. Prerequisite for 112: 111 or permission of chairperson. 3 credits.

200. Introduction to Literary Studies. An introduction to genres and to the basic methodology, tools, terminology, and concepts of the study of literature. 3 credits.

210. Management Communications. The development of reading, writing, speaking and listening skills for business management. Prerequisite: ENG 111,112 or permission. 3 credits.

213. Journalism. The development of the basic skills of journalistic writing such as interviewing, covering meetings, gathering and reporting news and features according to standard formats and styles; the course also discusses legal and ethical aspects of journalism. Prerequisite: ENG 111,112 or permission. 3 credits.

216. Technical Writing. The development of writing skills within the context of specialized, usually technical or scientific, subject matters, with emphasis on style and forms. Prerequisite: ENG 111 and 112 or permission. 3 credits.

218. Oral Communication. Introduction to oral communication, both formal and informal. 3 credits.

219. Creative Writing: Fiction. A workshop in writing short fiction. 3 credits.

220. Creative Writing: Poetry. A workshop in writing poetry. 3 credits.

221. Survey of American Literature I. A survey of selected major American authors from the colonial period to about the Civil War. 3 credits.

222. Survey of American Literature II. A survey of selected major American authors from about the Civil War to the present. 3 credits.

225. Survey of English Literature I. A survey of selected major English authors to about 1800. 3 credits.

226. Survey of English Literature II. A survey of selected major English authors from about 1800 to the present. 3 credits.

227. World Literature I. A survey of selected major writers from the early Hebrews and Greeks to the Renaissance. 3 credits.

228. World Literature II. A survey of selected major writers from the Renaissance to the present. 3 credits.

311. Feature Writing. Instructions and practice in writing feature articles for newspapers, trade journals, and magazines; free lance marketing and market analysis. Prerequisite: ENG 213. 3 credits.

312. Radio and TV Writing. Theory and technique of writing news and features for broadcast media. Editing and rewriting press association dispatches, gathering local news, recording interviews, and preparing newscasts and feature programs. Prerequisite: ENG 213. 3 credits.

313. Advertising Copy and Layout. Principles and techniques of copywriting; selection and presentation of sales points; creative strategy in production of layouts. Prerequisite: ENG 213. 3 credits.

314. Public Relations. Purposes and methods of modern public relations as practiced by business and industry, organizations and institutions, trades and professions. Public opinion evaluation. Planning of public relations programs. Prerequisite: ENG 213. 3 credits.

315. Editing. Editing theory and exercises in copyreading, rewriting, and headlining. Prerequisite: ENG 213. 3 credits.

331. History and Traditional Grammar of English. An examination of the evolution of English sounds, grammatical forms, and vocabulary, as well as a survey of conventions and current usage. 3 credits.

332. Theory of Composition. A study of ancient and modern ideas on the writing process and the teaching of writing. 3 credits.

334. The Novel I. A survey of the development of the novel from the beginning of the genre through the Romantic period. 3 credits.

335. The Novel II. A survey of the development of the novel from Realism to the present. 3 credits.

336. Theater Workshop. A workshop in the elements of theater with classroom practice in production of scenes and whole plays. 3 credits.

338. Dramatic Literature I. A survey of dramatic literature from the Greeks to about 1850, with attention to theater modes and techniques. 3 credits.

339. Dramatic Literature II. A survey of dramatic literature from about 1850 to the present, with attention to theater modes and techniques. 3 credits.

341. Shakespeare I. A concentrated study of early Shakespearean drama, especially the comedies and the histories. 3 credits.

342. *Shakespeare II.* A concentrated study of late Shakespearean drama, especially the tragedies and the romances. 3 credits.

343. *Major Authors.* An examination of works of major authors in American, English, and World literature. 3 credits.

390–399. *Special Topics.* 3 credits.

499. *Seminar.* The topics of this culmination of a liberal education in English vary. The course is taught as a seminar with much of the teaching being done by the students. 3 credits.

Environmental Studies

Students interested in pursuing career preparation in environmental studies through the cooperative program ("3+2") with Duke University may major in biology, economics, political science or mathematics at Lebanon Valley. All such students shall take BIO 111, 112, 302; ECN 110, 120; MAS 161 or 111; MAS 170, regardless of major, and shall meet the general requirements of the college. See Cooperative Programs on page 25.

Fine Arts (FAR)

This course is offered to acquaint students with the connection between theater and dance performance which has been essential to the development and enrichment of the world's civilizations. The course is graded on a S (satisfactory) or U (unsatisfactory) basis.

Course in Fine Arts

110. *American Musical Stage Dance.* Jazz techniques of American theatrical contemporary dance emphasizing form, style, and characterization. 1 credit.

Foreign Language (FLG)

(See also French, German, Greek, Japanese and Spanish)

The Foreign Languages department is described on page 38.

Degree: Bachelor of Arts with a major in foreign language.

Major: FLG 250, 24 credits above the intermediate level in one language, 12 credits above the intermediate level in a second language (39 credits). For teaching certification FLG 440 is also required.

Courses in Foreign Language

250. Introduction to Linguistics. An introductory study of language as a communication system, designed for majors and non-majors and taught in English. 3 credits.

260. Approaches to Culture. A survey of contemporary life in French, German and Spanish speaking countries. Topics may include customs, values, social structures, geography, and current issues. Taught in English. 3 credits.

440. Methods of Teaching Foreign Language. A comprehensive study of modern teaching methods, with emphasis on basic skills for elementary through secondary school level instruction. Prerequisite: FRN 316, SPA 316, or GMN 316. 2 credits.

Forestry

Students interested in pursuing career preparation in forestry through the cooperative program ("3+2") with Duke University may major in biology, economics, political science or mathematics at Lebanon Valley. All such students shall take BIO 111, 112, 302; ECN 110, 120; MAS 161 or 111; MAS 170, regardless of major, and shall meet the general requirements of the college. See Cooperative Programs on page 25.

French (FRN)

The Foreign Languages Department is described on page 38.

Degree: Bachelor of Arts with a major in French.

Major: 24 credits in French above the intermediate level, FLG 250 (27 credits).

Minor: 18 credits in French above the intermediate level. Courses in advanced conversation and composition as well as in culture are strongly recommended.

Courses in French

101,102. Elementary French I,II. Introductory courses in French. 3 credits per semester.

201,202. Intermediate Conversational French I,II. A review of French grammar, emphasizing practice in conversation, comprehension, reading, and writing. Prerequisite: FRN 102 or equivalent. 3 credits.

311. Introduction to French Literature. Practice in the close reading of literary texts and in the basic language skills. Prerequisite: FRN 202 or equivalent. 3 credits.

312. Contemporary Literature. Readings in the works of living French authors. Attention both to individual style, innovations in form, and the relationship of the writer to current problems. Prerequisite: FRN 202 or equivalent. 3 credits.

315. French Culture. A study of modern France. Special attention is given to those qualities, characteristics, and traditions that are uniquely French. Prerequisite: FRN 202 or equivalent. 3 credits.

316. Advanced Conversation and Composition. Intensive practice in spoken and written French. An advanced grammatical and stylistic level with emphasis on the use of language in practical situations. Prerequisite: FRN 202 or equivalent. 3 credits.

320. Business French. An introduction to the language of business and business practices. Prerequisite: FRN 202 or equivalent. 3 credits.

410. French Literature of the Middle Ages and Renaissance. A study of medieval French literature to 1600. Prerequisite: FRN 311 or 316 or permission. 3 credits.

420. French Literature of the Age of Louis XIV. A study of major French authors of this era, the apogee of French civilization, including Corneille, Racine, Moliere. Prerequisite: FRN 311 or FRN 316 or permission. 3 credits.

430. French Literature of the Enlightenment. A study of the main literary and philosophical currents of the eighteenth century. Emphasis on the works of Montesquieu, Diderot, Voltaire, and Rousseau. Prerequisite: FRN 311 or FRN 316 or permission. 3 credits.

440. The Modern French Novel. A study of the French novel. Limited to the study of novels of the nineteenth and twentieth centuries. Prerequisite: FRN 311 or FRN 316 or permission. 3 credits.

450. Modern Theatre and Poetry of France. A study of theater and poetry of the nineteenth and twentieth centuries. Prerequisite: FRN 311 or FRN 316 or permission. 3 credits.

General Education (GED)

120. The Western Experience: Our Cultural Heritage. A study of how life in the late twentieth century has been influenced by historical developments in Europe and America, including the growth of science, the rise of national states, social classes and values, and changing views of the world. 3 credits. {Cross-listed as History 102.}

140. Human Culture and Behavior. Culture as a context of human behavior. The nature and definition of culture. The biological and social sources of culture. Culture, language, personality. The impact of culture on social life and on the individual; examples from Western and non-Western sources. 3 credits.

160. The Aesthetic Experience. The artist's achievement. Interrelationships among the arts. The creative process. Questions of form versus content. Art as the product of a specific socio-historical context. 3 credits.

General Studies

Associate Degree

The associate degree program in general studies is intended for students who do not wish to concentrate in a single area. In this program students select their courses freely from among the arts, humanities, sciences, and social sciences.

Degree: Associate of Arts or Associate of Science with a major in General Studies. Open only to students matriculated through the Continuing Education Office.

Requirements: 27 credits from the general requirements including ENG 111, 112, LSP 100 or 111, and one course from each of the other General Requirement areas, except physical education; 33 credits of free electives; a cumulative grade point average of 2.00.

Geography (GPY)

Courses in geography are offered to acquaint students with the physical and cultural aspects of the world in which they live and to introduce them to geography as a discipline. The courses are recommended for all students who wish to broaden their understanding of the world.

Courses in Geography

111. Physical Geography and Its Impact. A survey of the physical aspects of the earth and its impact on life. Attention is given to the solar system, the earth's movements, climate, weather, landforms, ecology, environmental awareness, and the processes that form and change the earth's surface. Students explore through current events, geographic searches, slides, lectures, and discussions the impact that physical geography has on their everyday lives. Requirement for elementary education certification. Prerequisite: Elementary Education major or permission of instructor. 3 credits.

112. Cultural Geography. A survey of the various geographic regions of the world and their cultural features, including their natural resources, economy, social and religious customs, food supply, populations, ecology, and topical geography. Students explore the events and forces that have divided the globe into two basic sets of countries, those of the technological world and those of the developing world. Special attention is given to heightening students' international awareness and appreciation for diverse cultures. 3 credits.

211. American Cultural Geography. A study of how the natural environment has influenced the historic development of American culture, including the geographic distribution of population groups, religious denominations and practices, language patterns, architectural styles, and the like. 3 credits.

German (GMN)

The Foreign Languages Department is described on page 38.

Degree: Bachelor of Arts with a major in German.

Major: 24 credits in German above the intermediate level; FLG 250. (27 credits).

Minor: 18 credits in German above the intermediate level. Courses in advanced conversation and composition as well as in culture are strongly recommended.

Courses in German

101,102. Elementary German I,II. Introductory courses in German. 3 credits.

201,202. Intermediate Conversational German I,II. A review of German grammar, with practice in conversation, comprehension, reading and writing. Prerequisite: GMN 102 or equivalent. 3 credits.

210. Scientific German. An introduction to scientific writing in German. The vocabulary and syntax of scientific writing with emphasis on the accurate translations of texts. Taught in English. Prerequisite: GMN 102. 3 credits.

311. Introduction to German Literature. Practice in the careful reading of literary texts and in the four basic language skills. Prerequisite: GMN 202 or equivalent. 3 credits.

312. Contemporary Literature. Readings in the works of living German authors. Attention both to individual style and the relationship of the writer to current problems. Prerequisite: GMN 202 or equivalent. 3 credits.

315. German Culture. Study of the major features of contemporary German life. Prerequisite: GMN 202 or equivalent. 3 credits.

316. Advanced Conversation and Composition. Intensive practice in spoken and written German on an advanced grammatical and stylistic level, with emphasis on the use of the language in practical situations. Prerequisite: GMN 202 or equivalent. 3 credits.

320. Business German. An introduction to the language of business and business practices. Prerequisite: GMN 202 or equivalent. 3 credits.

410. The German Heritage. A survey of German culture and civilization including history, music, art, literature, and philosophy. Prerequisite: GMN 311 or 316 or permission. 3 credits.

420. The Age of Heroes. An exploration of the idea held by writers from the medieval through

the baroque periods that an exemplary individual is the proper measure and focus of human aspiration and achievement. Prerequisite: GMN 311 or 316 or permission. 3 credits.

430. *Goethe and Schiller.* A detailed study of these literary figures, with an examination of their society and artistic achievements. Prerequisite: GMN 311 or 316 or permission. 3 credits.

440. *The German Novelle.* The novelle as a literary genre as well as its development through the nineteenth and twentieth centuries. Prerequisite: GMN 311 or 316 or permission. 3 credits.

450. *German Literature of the Twentieth Century.* A study of representative works by leading authors of the century and current literary movements. Prerequisite: GMN 311 or 316 or permission. 3 credits.

Greek (GRK)

The Foreign Languages Department is described on page 38.

101,102. *Elementary Greek I,II.* Introductory study in the basics of ancient Greek. 3 credits.

Health Care Management

The Management Department is described on page 41.

The major in health care management is designed for people in health care fields who possess an associate degree or diploma and professional certification. These qualifications are required for admission to the program. The program combines studies in the liberal arts and management, plus business practices common to the health care industry.

Degree: Bachelor of Science with a major in health care management.

Major: ACT 161, 162, ECN 110, 120, 315, ENG 111, 210, LSP 100, MGT 233, 330, 487, PHL 360; SOC 324; 9–12 credits in sociology, psychology, or other disciplines approved by the director of continuing education; and any four of the following courses (12 credits): MAS 170, MGT 222, 340, 350, 361, 371, 372, 384, 420, 425 (60–63 total).

Admission to this degree program is open only to adults who have completed successfully an accredited diploma or associate degree program also with certification by a state governmental agency or a national professional accrediting organization in the following fields: Clinical Medical Assistant, Cytotechnologist, Dental Hygienist, Emergency Medical Technician, Medical Laboratory Technician, Nuclear Medicine Technologist, Occupational Therapy Assistant, Physical Therapy Assistant, Radiologic Technologist, Registered Nurse, Respiratory Therapist.

Health Professions

See Allied Health Professions on page 25 or Pre-Medical, Pre-Dentistry, or Pre-Veterinary on page 113.

History (HIS)

The History Department is described on page 40.

Degree: Bachelor of Arts with a major in history.

Major: History is a two-track major.

The standard history major requires HIS 101, 102, 125, 126, 251, 253, two upper-level courses in American history, two upper-level courses in European history (from HIS 205, 206, 207), two non-western history courses and two elective courses in history. For students attending graduate school, HIS 499 is strongly recommended (42 credits).

For students seeking secondary education certification to teach social studies, a history major requires HIS 101, 102, 125, 126, 251, 253, one upper-level course in American history, one upper-level course in European history (from HIS 205, 206, 207), one non-western history course and one elective course in history (30 credits).

Minor: HIS 101, 102, 125, 126, 251, 253; one upper-level course in American history and one upper-level course in European history (from HIS 205, 206, 207) (24 credits).

Courses in History

101. *Western Civilization to the Fourteenth Century.* The development of the western world from its Near Eastern and Mediterranean origins to the eve of the Renaissance. 3 credits.

102. *Western Civilization from the Fourteenth Century to the Present.* A study of how life in the late twentieth century has been influenced by historical developments in Europe and America, including the growth of science, the rise of nation states, social classes and values, and changing views of the world. 3 credits. {Cross-listed as General Education 120.}

125. *Survey of United States History I.* The story of America from Columbus to the Civil War. 3 credits.

126. *Survey of United States History II.* The story of America from Reconstruction to the present. 3 credits.

173. *History of Africa.* African civilization from its origins in the ninth century to the present day, with emphasis on the impact of colonialism, regional distinctions, and the emergence of independent states. 3 credits.

175. *History of Latin America.* Latin American civilization from its origins to the present, with emphasis on the impact of colonialism, the emergence of independent states, relationships with the United States, and the modern regional distinctions. 3 credits.

205. *Early Modern Europe.* The Renaissance, Reformation, Scientific Revolution, and the development of national political states, especially in the 17th and 18th centuries. 3 credits.

206. *Revolution & Nationalism, 1789–1914.* A study of the effects of the French Revolution and the Industrial Revolution on Europe. Particular attention is paid to the rise of class antagonisms and national rivalries. 3 credits.

207. *Europe in the 20th Century.* Developments in Europe from 1914 to the present, with particular attention to the impact of the world wars. 3 credits.

225. *The Colonies and the American Revolution.* A study of how Europeans seized the New World, transformed themselves into Americans, and fought to build a republic in a hostile world of monarchies. 3 credits.

226. *Age of Jefferson & Jackson.* How the old republican ideal of a virtuous agrarian society struggles to confront the new age of economic modernization, social diversity, and sectional tension. 3 credits.

227. *Civil War and Reconstruction.* A study of how sectional divisions over slavery led to a bloody war and a bitter postwar effort to reshape Southern society. 3 credits.

229. *America in the Atomic Age.* The impact of World War II, the cold war, social change, and international responsibilities upon America since 1941. 3 credits.

251. *History and Historians.* The first half of this course covers the lives and ideas of the great historians from ancient times to the modern world; the second half of the course covers recent interpretations of American history. 3 credits.

253. *Public History.* An introduction to non-teaching careers in history. Students examine the basics of archival management, museum curatorship, editing, oral history, and specialized work in government, corporations, historical societies, libraries, and preservation agencies. 3 credits. {Cross-listed as American Studies 253.}

271. *History of China and Japan.* An analysis of political, economic and cultural institutions of China and Japan with special emphasis on the western impact on these institutions after 1500. 3 credits.

301. *European Social History.* An inquiry into the lives and experiences of ordinary folk. Topics include women, laboring classes, and popular culture. 3 credits.

303. *Nazi Germany and World War II.* A look in depth at the nature of totalitarianism, the

German experience, the growth of the Nazi party, the emergence of Hitler, and the Holocaust. 3 credits.

307. *Survey of Russian History.* The development of Russia and the Soviet Union from Kievan beginnings to the present, with emphasis upon the period since 1600. 3 credits.

321. *American Social and Cultural History to 1860.* An analysis of immigration and ethnicity, the role of women, the frontier, rural and urban life, the underclass, religion, utopianism, education, literature, the arts, science, intellectual life, reform movements and other factors influencing society. 3 credits.

322. *American Social and Cultural History Since 1860.* An analysis of immigration and ethnicity, the role of women, the frontier, industrialization, urbanization, the underclass, religion, education, literature, the arts, science and technology, intellectual life, reform movements and other factors influencing society. 3 credits.

325. *American Business History to 1920.* An analysis of the role of business in America from the colonial period to 1920. Topics include managerial leadership, entrepreneurship, the development of the American economy, and the relationships between business, government, trade unionism and society. 3 credits. {Cross listed as Management 325.}

326. *American Business History Since 1920.* An analysis of the role of business in America during the twentieth century. Topics include managerial leadership, entrepreneurship, the development of the American economy, and the relationships between business, government, trade unionism, and society. An examination of the transfer of technology, methodology and resources from one industry to another is examined. Instruction method includes industrial, corporate and managerial case studies, readings, and classroom discussion. 3 credits. {Cross listed as Management 326.}

327. *American Military History.* An analysis of American military institutions from Old World tradition to the post-Persian Gulf era with emphasis on the United States Army. 3 credits.

499. *Seminar.* An in-depth study of an important historical topic. May be taken more than once on different topics. Some seminars may emphasize reading and evaluating important works of history; others may emphasize the writing of a research paper based on original sources. 3 credits.

Honors (HON)

The Honors program and courses are described on page 23.

Hotel Management (HTM)

The Management Department is described on page 41.

Degree: Bachelor of Science with a major in hotel management.

Major: HTM 111, 112, 211, 222, 231, 311, 322, 331, 411, 422, 431; ACT 161, 162; ECN 120; MGT 330, 340, 420, 485; ENG 210; PHL 360 (60 credits).

Minor: HTM 111, 112, 211, 222, 231, 311; ACT 161 (21 credits).

Courses in Hotel Management

111. Introduction to the Hospitality Industry. History, development and operation of the hospitality industry. Emphasis on current organization, problems, opportunities and trends. Overview of how the hospitality industry functions in the world economy. Management orientation stressed. 3 credits.

112. Front Office Management. An analysis of the integrated functions of the front office and housekeeping departments. Topics include work and information flow within and between departments, demand forecasting, pricing strategies, reservations and control, front desk responsibilities, guest services, emergency procedures, night auditing, and a general introduction to the art of innkeeping. Materials, equipment and techniques involved in the housekeeping function will also be analyzed. Prerequisite: HTM 111. 3 credits.

211. Hotel Law. Fundamentals of hotel law including innkeeper laws and dramshop laws. The case study method develops an awareness and understanding of the legal problems confronting hotel managers. 3 credits.

221. The Psychology and Sociology of Leisure. An analysis of the fundamental psychological and sociological concepts and theories related to the motivation for travel. Review of consumer behavior in the hotel industry. Evaluating customer needs and services. Prerequisite: HTM 111 and permission. 3 credits.

222. Food and Beverage Management I. Introduction to the food and beverage functions with emphasis on menu planning and purchasing. Includes fundamentals and language, systems, equipment, operational responsibilities, management organizational patterns, nutrition, storage, and sanitation. Prerequisite: HTM 111. 3 credits.

231. Supervised Field Experience: Front Office Management. Emphasizes selected aspects of front office management. Accompanied by readings, reports, journals, and faculty conferences. One hundred thirty-five (135) hours of field work in the hotel industry. Prerequisite: HTM 112 and permission. 3 credits.

311. Advanced Hotel Management. An analysis of the following aspects of hotel organizations: health, safety and security; building and grounds; equipment purchase, repair and maintenance; facilities design; renovation and maintenance; internal controls; and energy management. Prerequisite: HTM 112. 3 credits.

322. Food and Beverage Management II. Analysis of the food and beverage functions with emphasis on production and services. Prerequisite: HTM 112. 3 credits.

331. Supervised Field Experience: Marketing. Emphasizes selected aspects of marketing techniques and research. Accompanied by readings, reports, journals, and faculty conferences. One hundred thirty-five (135) hours of field work in the hotel industry. Prerequisite: HTM 112, MGT 340 and permission. 3 credits.

411. Hotel Financial Management. To develop an understanding of common techniques and methods by which management in the hospitality industry can interpret, analyze, and make decisions based on information provided by the accounting system. Prerequisite: ACT 161, 162. 3 credits.

422. Food and Beverage Management III. Advanced analyses of the food and beverage functions with emphasis on cost control and profit planning. Relevant computer software applications are reviewed in depth. Prerequisite: HTM 322. 3 credits.

431. Supervised Field Experience: Accounting and Finance. Emphasizes selected aspects of accounting and financial management concepts and techniques. Accompanied by readings, reports, journals, and faculty conferences. One hundred thirty-five (135) hours of field work in the hotel industry. 3 credits.

Individualized Major

The option of an individualized major is available to students who desire a field of concentration which is not substantially addressed by any one department. The faculty represents a diverse set of interests and perspectives that provides a considerable resource for those students who would like to develop a major around concerns that do not fall into traditional disciplinary areas. As a liberal arts institution, the college and its faculty are willing to help a student develop a program of study using interdisciplinary courses.

A student who is planning an individualized major should prepare an application which includes courses relevant to the topic and secure the written endorsement of at least two faculty advisers for the proposed major which shall consist of at least 24 credits above the 100 level..

The student should submit the application to the dean of the college for final approval. The student will work closely with the advisers. Any changes in the program must be submitted to the dean of the college for approval.

Degree: Bachelor of Arts or Bachelor of Science degree (depending upon concentration) with an individualized major.

Requirements: Those courses specified within the approved individualized major plus those courses to meet the general requirements of the college.

International Business

The program in International Business is offered jointly by the Foreign Languages Department, described on page 38, and the Management Department, described on page 41.

The program in international business provides an opportunity to integrate the study of business with the knowledge of a foreign language and culture. It is designed to equip students with the background and skills necessary to work with foreign corporations within the United States and with American corporations abroad. While acquiring a strong liberal arts background, students who elect this major will receive training in accounting, management, economics and political science. They also will become familiar with a foreign culture and will acquire proficiency in French, German or Spanish. International business majors are encouraged to apply for internships to gain valuable field experience.

Degree: Bachelor of Science with a major in international business.

Major: ACT 161, 162; ECN 110, 120, 332; MGT 233, 330, 340, 361, 376, 485; two courses from PSC 210, 230, or 312; MAS 150 or 161 or 111; MAS 170 or 270, or 372; FRN, GMN, SPA 315, 316; and two other courses in the selected foreign language above the intermediate level (57 credits).

Japanese (JPN)

The Foreign Languages Department is described on page 38.

Courses in Japanese

101,102. Elementary Japanese I,II. Introductory courses in Japanese. 4 credits.

201,202. Intermediate Conversational Japanese I,II. A continuation of Japanese grammar, and practice in conversation, comprehension, reading and writing. Prerequisite: JPN 102 or equivalent. 4 credits.

Leadership Studies (LSP)

The program in Leadership Studies is described on page 21.

Courses in Leadership

100, 111. Theories and Applications of Leadership Processes. Theories and concepts of leadership, power and authority. Analysis of their practical applications. Specific areas to be covered include group dynamics, communication skills, conflict resolution, motivation, decision-making, values clarification, self-assessment, and ethics. Prerequisite for LSP 111, permission of instructor. 3 credits.

330. Ethical Issues and Values in Leadership. A critical examination of the ethical and valuation questions that reside at the core of both leadership and leadership theories. Prerequisite: LSP 100 or 111. 3 credits.

350. Advanced Leadership Studies. Models and theories of leadership as exemplified in case studies. Analysis of leadership in other cultures and assessment of the student's own leadership style are included. Prerequisite: LSP 100 or 111, PHL 160 or REL 160. 3 credits.

400. Leadership Internship. Students select a worksite and study the organizational leadership for eight hours a week per three credit hours. Internship can be paid or unpaid. Prerequisite: LSP 350 and 2.75 GPA. 3–12 credits.

Management (MGT)

The Management Department is described on page 41.

Degree: Bachelor of Science with a major in management.

Major: ACT 161, 162; ECN 110, 120; ENG 210; MGT 222, 233, 330, 340, 361, 371, 460, 483, 485; MAS 150 (or 111 or 161); MAS 170 (or 270 or 372); PHL 360 (51 credits).

Courses in Management

100. Business and Its Environment. An overview of business operations for the non-business major. Specialized fields within business organizations are analyzed. The environment and the role of business in modern society are examined. Not open to accounting, economics, management, or international business majors. 3 credits.

222. Quantitative Methods. An introduction to some of the quantitative methods used in modern management and economics. Topics include probability concepts, forecasting, decision theory, linear programming, queuing theory, network models, and Markov analysis. Prerequisites: MAS 150 and 170. A student must attain a grade of "C–" or above in MAS 150 and 170 as a prerequisite for this course. 3 credits. {Cross-listed as Economics 222.}

233. Personal Computer Applications in the Business and Economic Environment. An introduction to personal computers and their use as a business management tool. Through classroom instruction and laboratory exercises the student learns commonly used business applications. Topics covered include word processing, electronic spreadsheets, database management, business graphics, decision support systems, and integrated accounting packages. Prerequisite: ACT 151 or 161, ECN 110 or 120, or permission. 3 credits. {Cross listed as Accounting 233 and Economics 233.}

250. Real Estate Fundamentals and Practice. This course acquaints the student with aspects of listing, selling, and leasing property. Includes listing and selling techniques; contracts; financing including FHA and VA; qualifying the customer; settlement procedures including

prorations; and special fields of real estate such as development and construction. 3 credits.

325. *American Business History to 1920.* An analysis of the role of business in America from the colonial period to 1920. Topics include managerial leadership, entrepreneurship, the development of the American economy, and the relationships between business, government, trade unionism and society. 3 credits. {Cross listed as History 325.}

326. *American Business History Since 1920.* An analysis of the role of business in America during the twentieth century. Topics include managerial leadership, entrepreneurship, the development of the American economy, and the relationships between business, government, trade unionism and society. 3 credits. {Cross listed as History 326.}

330. *Principles of Management and Organizations.* A study of management principles, organizational theory, and administrative techniques as applied to the effective and efficient operation of both profit and nonprofit organizations. Emphasizes the organization's structure, leadership, interpersonal relationships, and managerial functions. 3 credits.

340. *Principles of Marketing.* An overview of marketing from the management perspective. Topics include marketing strategies; marketing research; consumer behavior; selecting target markets; developing, pricing, distributing, and promoting products and services and non-profit marketing. Prerequisite: junior standing or permission. 3 credits.

341. *Consumer Behavior.* Analysis of factors affecting purchase decisions in the marketplace; application of behavioral and social science concepts to the study of consumer behavior. Emphasis on use of knowledge of consumer behavior for marketing decisions. Prerequisite: MGT 330 and MGT 340, or permission. 3 credits.

350. *Organizational Behavior and Development.* A detailed study of theories and models of organizational behavior and development, with emphasis on the practical application of these models in the workplace to improve individual, group, and organizational performance. Prerequisite: junior standing and MGT 330, or permission. 3 credits.

361. *Managerial Finance.* A study of financial management covering analysis of asset, liability and capital relationships and operations; management of current assets and working capital; capital planning and budgeting; capital structure and dividend policy; short and intermediate term financing; internal and external long term financing; mergers and acquisitions; multinational operations; and corporation failures and liquidation. Prerequisite: ACT 152 or ACT 162; ECN 110, 120; MGT 222. 3 credits.

362. *Investments.* An analysis of investment and its relation to other economic, legal, and social institutions. The course includes discussion of investment principles, machinery, policy, management investment types, and the development of portfolios for individuals and institutions. Prerequisite: MGT 361. 3 credits.

364. *Advertising.* The role advertising plays in American life and its effect upon consumer

behavior. Analysis of media strategies, functions of advertising agencies, creation of successful advertisements, and the legal and ethical restraints on advertising. Prerequisite: MGT 340. 3 credits.

371. Business Law I. Elementary principles of law relating to the field of business. The course covers contracts, government regulation of business, consumer protection, bankruptcy, personal property, real estate, bailments, insurance and estates. Prerequisite: ACT 152 or 162 highly recommended. 3 credits.

372. Business Law II. A study of the elementary principles of law relating to business. Covers the areas of: agency, employment, commercial paper, security devices, partnerships, corporation, estates. Prerequisite: ACT 152 or 162 highly recommended. 3 credits.

376. International Business Management. Studies management techniques and procedures in international and multinational organizations. Prerequisite: MGT 340. 3 credits.

380. Small Business Management. A study of small business, including organization, staffing, production, marketing, and profit planning. Cases are used extensively in presenting the course material. Prerequisite: ACT 152 or 162, MGT 330, or permission. 3 credits.

384. Marketing Research. This course is an introduction to the methodology of marketing research. Specific topics covered include problem formulation, research design, sample design, data collection, analysis and interpretation of data, and presentation of research findings. Prerequisite: MGT 330 and MGT 340. 3 credits.

420. Human Resource Management. This course examines the problems in effectively recruiting, selecting, training, developing, compensating, and disciplining human resources. It includes discussions on both equal employment opportunity and labor-management relations. Prerequisite: MGT 330 or permission. 3 credits.

425. Labor Management Relations. Emphasizes origin, growth, and development of labor organizations and their impact on management practices. Topics include: legislation affecting industrial relations; collective bargaining; contract administration; industrial jurisprudence; and arbitration. Prerequisite: MGT 330 or permission. 3 credits.

460. Management Information Systems. Examines data sources and the role of information in the organization for purposes of management planning, operations, and control in various types of business environments. Treats information as a key organization resource parallel to people, money, materials, and technology. Prerequisite: ACT 152 or 162, MGT 233, MGT 330, or permission. 3 credits.

480. Contemporary Issues in Management. A study of contemporary issues that managers will be called upon to deal with in the management of business and organizations. Topics will include: drug testing in the workplace, the effect of AIDS in business, dual career couples, sexual harassment, stress and executive burnout, equal employment opportunity, benefits,

business ethics, unions and management, non-smoking policies, eldercare, childcare and the workplace. Prerequisite: junior or senior standing. 3 credits.

483. Production and Operations Management. An overview of the production/operations management function as applied to both manufacturing and service organizations. It provides a background of the concepts and processes used in the production/service operations area. Integrated throughout are considerations of the information systems, the people involved, the quantitative techniques employed, and the international implications. Prerequisite: MGT 222 and MGT 330, or permission. 3 credits.

485. Business Policy. A capstone course to study administrative processes under conditions of uncertainty, integrating prior studies in management, accounting, and economics. Uses case method and computer simulation. Prerequisite: senior standing or permission. 3 credits.

487. Health Care Management. A capstone course to study the administrative processes of America's health care industry including institutional infra-structure, governance systems, financial systems, personnel systems, quality controls, nursing and clinical services, and marketing. The course integrates prior study in health care, management, accounting, and economics. Students will develop problem solving skills and an appropriate management style. Prerequisite: senior standing or permission. 3 credits.

Mathematics (MAS)

The Mathematical Sciences Department is described on page 43.

Degree: Bachelor of Science with a major in mathematics.

Major: MAS 111, 112, 202, 222, 251, five additional MAS courses numbered 200 or higher subject to: no more than one numbered below MAS 300, at least one of 270 or 372, at least one of 322, 325, 411, 412, at least one of 335, 363; MAS 498, MAS 499; CSC 125 (39 credits).

Minor: MAS 161, 162, 202, 222, 251, and one MAS course numbered 300 or higher; CSC 125 (22 credits).

The mathematics minor is not available for actuarial science majors. No course outside of the core (MAS 111, 112, 202, 222, CSC 125) may be used to meet the requirements of more than one major or minor within the Department of Mathematical Sciences.

Courses in Mathematics

00. Basic Concepts of Mathematics. A study of a variety of topics in mathematics. Topics may include: patterns and inductive reasoning, calculators, number systems, nature of algebra, interest, installment buying, and geometric concepts. 3 credits.

02. Pre-Calculus, Algebra and Trigonometry. A review of college algebra and trigonom-

etry. Algebraic expressions and equations, inequalities, absolute value, exponents, logarithms, functional notation, graphs of functions, systems of equations, modeling and work problems, angular measurement, trigonometric functions, identities, formulas, radian measure, graphs of trigonometric and inverse functions. 3 credits.

111,112. Analysis I,II. A rigorous calculus sequence for departmental majors and other students desiring a theoretical presentation of elementary calculus. Prerequisite: placement testing or MAS 102. 5 credits per semester.

150. Finite Mathematics. Introduction to finite mathematics with emphasis on economic and business applications. Topics include: sets, lines and systems of equations, matrices, linear programming, probability, statistics, Markov processes, mathematics of finance. 3 credits.

161. Calculus I. The first course of a calculus sequence with emphasis on applications. Functions and limits, differentiation, integration, introduction to logarithm and exponential functions. Prerequisite: placement testing or MAS 102. 3 credits.

162. Calculus II. Continuation of topics from MAS 161. Additional applications of differentiation and integration, logarithm and exponential functions, inverse trigonometric and hyperbolic functions, improper integrals, Hopital's rule, infinite series, and conic sections. Prerequisite: MAS 161. 4 credits.

170. Elementary Statistics. Elementary descriptive and inferential statistics. Topics include: graphical representation, measure of central tendency, probability, binomial distribution, normal distribution, hypothesis testing, and estimation. 3 credits.

202. Foundations of Mathematics. Introduction to logic, set theory and cardinal numbers. Prerequisite: MAS 112 or MAS 162. 3 credits.

211. Analysis III. Continuation of Analysis I,II and Calculus I and II. Prerequisite: MAS 112 or MAS 162. 3 credits.

222. Linear Algebra. Vectors, matrices, and systems of equations. Prerequisite: MAS 112 or MAS 162. 3 credits.

251. Discrete Mathematics. Introduction to mathematical ideas used in computing and the information sciences: logic, boolean algebra, sets and sequences, matrices, combinatorics, induction, relations, and finite graphs. Prerequisite: MAS 111 or MAS 161. 3 credits.

266. Differential Equations. First and second order differential equations, partial differential equations. Prerequisite: MAS 211. 3 credits.

270. Intermediate Statistics. An advanced version of MAS 170. Prerequisite: MAS 111,161 or permission of instructor. 3 credits. (Credit may not be received for both MAS 170 and 270.)

322. Abstract Algebra. Fundamentals of groups, rings, fields. Prerequisite: MAS 222. 3 credits.

325. Geometry. Axiomatic development of Absolute, Euclidean and non-Euclidean geometries. Prerequisite: MAS 112 or MAS 162. 3 credits.

335. Operations Research I. Linear programming, dynamic programming, integer programming, queueing theory, project scheduling, stochastic simulation, and decision analysis. Prerequisite: MAS 222, 371. 3 credits.

336. Operations Research II. Continuation of topics from MAS 335, and selected topics from goal programming, network analysis, game theory, stochastic processes, inventory theory, forecasting, and reliability. Prerequisite: MAS 335. 3 credits.

342. Teaching Mathematics. A course for those preparing to teach mathematics at the secondary level. Topics include: issues and trends in mathematics education, history of mathematical pedagogy, enrichment and professional development resources, teaching techniques, and use of technology. Prerequisite: Core. 3 credits.

363. Numerical Computation. A survey with topics from: finite arithmetic, root-finding algorithms, numerical integration and differentiation, interpolation, systems of equations, splines, numerical solution of differential equations, Monte Carlo methods, optimization, least squares. Prerequisite: MAS 112 or MAS 162 and CSC 125. 3 credits.

371. Mathematical Probability. Random variables, discrete and continuous and distributions. Prerequisite: MAS 112. 3 credits.

372. Mathematical Statistics. A theoretical introduction to estimation, tests of hypotheses, regression, and analysis of variance. Prerequisite: MAS 371. 3 credits.

411. Real Analysis. Topology of the real numbers. Continuity, convergence. Measure theory, Lebesgue Integration. Prerequisite: Core. 3 credits.

412. Functions of a Complex Variable. Analytic functions. Cauchy theorem, conformal mapping. Prerequisite: Core. 3 credits.

471. Applied Statistics. An application oriented presentation of analysis of variance, regressions, and time series analysis. Prerequisite: MAS 372. 3 credits.

498. Problem Solving/Recreational Math. A survey of interesting, challenging, and entertaining problems with emphasis on problem solving techniques. Prerequisite: Core. 1 credit.

499. Famous Problems. A survey of famous problems from mathematics; solved and unsolved, ancient and modern. Prerequisite: Core. 1 credit.

Medical Technology

Degree: Bachelor of Science in Medical Technology

Major: BIO 111, 112, 306, 322, eight additional credits in biology; CHM 111, 112, 113, 114, 213, 214, 215, 216; PHY 103, 104; MAS 170 (51 credits). The senior year is spent off-campus at an accredited hospital school of medical technology. It is the student's responsibility to apply and become accepted into a hospital program. Thirty (30) semester hours of credit are awarded for the successful completion of this year.

In addition to the degree described above, Lebanon Valley College also offers a "2+2" cooperative program in medical technology with Thomas Jefferson University and a "2+3" program with Hahnemann University, both in Philadelphia. The programs are described on pages 25 and 26.

Military Science (MIL)

The Military Science program is described on page 46.

Requirements: MIL 101, 102, 201, 202, 301, 302, 401, 402; HIS 327.

Courses in Military Science

101,102. Introduction to Military Science. Emphasizes developing self-confidence and bearing. Instruction and weekly practical training in the basic skills of map reading, rappelling, weapons, communications, first aid, tactical movements, customs, courtesies, public speaking, and leadership. Meets one hour per week, two or three Saturdays of adventure training and one formal social event each semester. 1 credit each semester.

201,202. Application of Military Science. Advanced instruction in topics introduced in the first year. Participation in operations and basic tactics to demonstrate leadership problems and to develop leadership skills. Meets two hours per week each semester. Also two to three Saturdays of adventure training and one formal social event each semester. 1 credit each semester.

301,302. Advanced Application of Military Science. Emphasis on leadership. Situations require direct interaction with other cadets and test the student's ability to meet goals and to get others to do the same. Students master basic tactical skills of the small unit leader. Meets two hours per week and selected weekends each semester. Prerequisite: Open only to Advanced Course cadets. 1 credit each semester.

401,402. Command and Staff. Emphasis is placed on developing planning and decision-making capabilities in the areas of military operations, logistics, and administration. Meets two hours per week and selected weekends each semester. Prerequisite: Open only to Advanced Course cadets. 1 credit each semester.

Music (MSC)

The Music Department is described on page 48.

Degrees: Bachelor of Arts in Music; Bachelor of Science in Music Education; and Bachelor of Music: Emphasis in Sound Recording Technology.

Majors: Core courses in all music degree programs are: MSC 099, 115, 116, 117, 118, 215, 217, 246, 328, 341 and 342. MSC 530 for B.S. and B.M. candidates, and MSC 540 for B.A. candidates. In addition, music majors will be in either MSC 601, 602, 603 or 604 each semester, exceptions noted previously.

Music (B.A.): Core courses plus: Piano concentration: MSC 216, 306, 316, 406 and 600; Voice concentration: MSC 216, 233, 326 and 327; Organ concentration: MSC 216, 316, 351, and 352; Instrumental concentration: MSC 216, 345, 403, 405 and 416; Sacred Music concentration: MSC 216, 347, 351 or 334, and 422; Theory/Composition concentration: MSC 216, 315, 329, 416 and 500: Senior Composition Project.

Music Education (B.S.): Core courses plus: MSC 123, 124, 127, 216, 228, 231, 232, 316, 333, 334, 335, 336, 337, 338, 345 or 347, 416, 441, EDU 110, PSY 120, and 220. Music education majors are permitted to register for only one half-hour lesson in their principal performance medium during the student teaching semester if they are preparing a recital.

Sound Recording Technology (B.M.): Core courses plus: RCT 277, 278, 377, 386, 388, 400, 487, PHY 103, 104 (fulfills Area 6 requirement), 110, 212, 350, MAS 102 (or higher), CSC 125 or MGT 233 (fulfills Area 3 computer requirement).

Minor: MSC 099 (two semesters), 100, 115, 116, 117, 341 or 342 plus one music literature elective: MSC 120, 200, 341 or 342. Minors also take MSC 530 for four semesters and must participate in a music ensemble for four semesters.

Student Recitals

Student recitals are of inestimable value to all music students in acquainting them with a wide range of the best music literature, and in developing musical taste and discrimination. Performing in a recital provides the experience of appearing before an audience and helps to develop self reliance and confident stage demeanor. Students at all levels of performance ability appear on regularly scheduled student recitals depending on their degree program, performance readiness, and in consultation with the private teacher.

Courses in Music

099. Recital Attendance. Designed for music majors and minors and graded on a Satisfactory/Unsatisfactory basis. Music core course. 0 credits.

100. Introduction to Music. For the non-music major, a survey of Western music designed to increase the individual's musical perception. May not be taken if the student has completed MSC 341 and/or 342. Fulfills Area 7 general education requirement for non-music majors. 3 credits.

110. Class Piano for Beginners. 1 credit.

111. Class Guitar for Beginners. Student provides their own instrument. 1 credit.

115. Harmony I. A study of the rudiments of music and their notation. Harmonization of melodies and basses with fundamental triads. Analysis. Music core course. 2 credits.

116. Harmony II. A study of diatonic tonal harmony, including all triads and seventh chords, nonharmonic material and elementary modulation. Music core course. 2 credits.

117. Ear Training and Sight Singing I. The singing and aural recognition of intervals, scales, triads and simple harmonic progressions. Music core course. 2 credits.

118. Ear Training and Sight Singing II. A continuation of MSC 117, emphasizing clef reading, modality, modulation and more complicated rhythmic devices and harmonic patterns. Music core course. 2 credits.

120. American Music History. A historical survey of American music emphasizing stylistic developments and illustrative musical examples from colonial times to the present. Includes American musical theater, jazz, folk and popular styles. 3 credits.

123. Brass I. A study of the trumpet and trombone. Emphasis on pedagogical techniques. 1 credit.

124. Brass II. A study of the remainder of the brass family (horn, baritone, tuba). Emphasis on pedagogical techniques. Mixed brass ensemble experience. 1 credit.

127. Percussion I. A study of the snare drum. 1/2 credit.

200. Topics in Music. Designed primarily for the non-music major, the course will focus on genre and period studies. 3 credits.

215. Harmony III. A study of chromatic tonal harmony, including secondary dominants, augmented sixth chords, tertian extensions, altered chords and advanced modulation. Music core course. 2 credits.

216. Harmony IV. A study of twentieth-century compositional techniques, including modal and whole-tone materials, quartal harmony, polychords, atonality, serialism and various rhythmic and metric procedures. 2 credits.

217. *Ear Training and Sight Singing III.* A continuation of MSC 118, emphasizing chromatic materials and more complex modulations, chord types, rhythms and meters. Music core course. 2 credits.

220. *Music in the Elementary School.* A course designed to aid elementary education majors in developing music skills for the classroom, including the playing of instruments, singing, notation, listening, movement, and creative applications. 3 credits. {Cross-listed as Elementary Education 220.}

228. *Percussion II.* A study of the remainder of the percussion instruments (timpani, bass drum and others). 1/2 credit.

231. *Woodwind I.* A study of the clarinet. 1 credit.

232. *Woodwind II.* A study of the remainder of the woodwind family (flute, oboe, saxophone, bassoon). 1 credit.

233. *Diction.* An introduction to the pronunciation of singer's English, German, French, Italian, and Latin, utilizing the International Phonetic Alphabet. Required of voice concentration majors, the course is open to other students with permission of the instructor. 2 credits.

246. *Principles of Conducting.* Principles of conducting and baton technique. Students conduct ensembles derived from class personnel. Music core course. 2 credits.

280. *Field Practicum in Music Education.* Supervised field experiences in appropriate settings. Required pass/fail. Prerequisites: EDU 110 and permission. 1–3 credit(s).

306. *Piano Literature.* A survey of the development of the piano and its literature with emphasis on piano methods books and related materials. 2 credits.

315. *Counterpoint.* Introductory work in strict counterpoint through three- and four-part work in all the species. 2 credits.

316. *Keyboard Harmony.* Score reading and the realization of figured bass at the keyboard, transposition, and improvisation. The successful completion of a piano jury is required for admission to the course. 2 credits.

326. *Vocal Literature.* A survey of solo vocal literature with emphasis on teaching repertoire. Extensive listening is required. Students may have opportunities to perform the works studied. 2 credits.

327. *Vocal Pedagogy.* This course prepares the advanced voice student to teach private lessons at the secondary school level. Students are expected to develop vocal exercise procedures, become familiar with suitable teaching repertoire and apply teaching procedures

in a laboratory situation. Selected writings in vocal pedagogy and voice therapy will be studied. 2 credits.

328. Form and Analysis I. A study through analysis and listening of simple and compound forms, variations, contrapuntal forms, rondo and sonata forms. Emphasis is placed primarily upon structural content. The course provides experience and skill in both aural and visual analysis. Music core course. 2 credits.

329. Form and Analysis II. A study through analysis and listening of fugal forms, suite, complex sonata forms and techniques for analysis of certain contemporary styles of music. 2 credits.

333. Methods and Materials, General Music: Elementary. A comprehensive study of general music teaching at the elementary school level, the philosophy of music education, varied approaches for developing conceptual learning and music skills, creative applications, and analysis of materials. 3 credits.

334. Choral Literature and Methods. A study of literature, materials, and approaches appropriate for choral and general music classes in grades 6–12. 3 credits.

335. Instrumental Literature and Methods. A study of literature, materials, philosophy, and methods applicable to the teaching of instrumental ensembles (including marching band) from elementary through high school levels. 3 credits.

336. Music Education Field Practicum. Students are placed in schools one hour per week where they are involved in a teaching/learning environment. 1 credit.

337. String I. A study of violin, viola, cello, string bass. 1 credit.

338. String II. A continuation of MSC 337. 1 credit.

341. History and Literature of Music I. A survey course in the history of Western music (in the context of world musics of various cultures), with emphasis on stylistic developments and illustrative musical examples, from early music through the Baroque era. Fulfills Area 7 general education requirement for non-music majors. Music core course. 3 credits.

342. History and Literature of Music II. A survey course in the history of Western music (in the context of world musics of various cultures), with emphasis on stylistic developments and illustrative musical examples, from the classical period to the present. Fulfills Area 7 general education requirement for non-music majors. Music core course. 3 credits.

345. Advanced Instrumental Conducting. Emphasis on practical work with instrumental groups. Rehearsal techniques are applied through individual experience. 2 credits.

347. Advanced Choral Conducting. Emphasis is on advanced technique with and without

baton, score preparation, interpretation and pedagogy relating to choral organizations. 2 credits.

351. Organ Literature. A historical survey of representative organ literature from earliest times to the present day. 2 credits.

352. Organ Pedagogy. Designed with a practical focus, this course surveys various methods of organ teaching. Laboratory teaching and selection of appropriate technical materials for all levels are included. 2 credits.

401. Instrument Repair. A laboratory course in diagnosing and making minor repair of band and orchestral instruments. 2 credits.

403. Instrumental Pedagogy. A survey of teaching materials that relate to the student's performance area. Students may be expected to apply teaching procedures in a laboratory situation. 2 credits.

405. Instrumental Literature. A survey of literature (solo and chamber) that relate to the student's performance area. 2 credits.

406. Piano Pedagogy. A practical course that explores fundamental principles necessary to be an effective piano teacher. Subjects include practice techniques, memorization and the selection of appropriate technical materials for both beginners and advanced students. Laboratory teaching may be required of the student. 2 credits.

416. Orchestration. A study of instrumentation and the devices and techniques for scoring transcriptions, arrangements and solos for orchestra and band, with special emphasis on practical scoring for mixed ensembles as they occur in public schools. Laboratory analysis and performance. Scoring of original works. 2 credits.

422. Church Music Methods and Administration. A course that acquaints students with the total church music program. Topics include the development of a choir program, methods and techniques of rehearsal, budget preparation, and committee and pastoral relationships. 3 credits.

441. Student Teaching. Music education majors spend a semester in the music department of a school district under the supervision of cooperating teachers. Prerequisites:
(1) a cumulative grade point average of at least 2.00 during the first six semesters
(2) successful completion of piano and voice juries
(3) completion of music core courses and MSC 123, 124, 127, 216, 228, 231, 232, 316, 333, 334, 335, 336, including field experiences, 345 or 347 and EDU 110
(4) approval of the music faculty. Students are responsible for transportation; the college cannot insure that student teaching placement can be in a local geographic area.
6/6 for a total of 12 credits.



Courses in sound recording technology introduce the student to the latest state-of-the-art technology.

500. Independent Study. See requirements on page 28. 1–3 credit(s).

510. Class Piano Instruction. Designed for music majors with minimal piano skills. Prepares the student to meet the department piano proficiency requirements. 1 credit.

520. Class Voice Instruction. Designed for but not restricted to music majors with minimal vocal skills. Prepares the student to meet the department voice proficiency requirements. 1 credit.

530. Individual Instruction (Voice, Piano, Orchestral and Band Instruments). 1 credit.

540. Individual Instruction (Voice, Piano, Orchestral and Band Instruments). 2 credits.

600. Accompanying. Under the guidance of a piano instructor the piano concentration student prepares accompaniments for recital performance. One credit per semester is given for one solo recital or two half recitals. A maximum of two credits, usually distributed over the last three years, may be earned. 1–2 credit(s).

Music Ensembles

601. Marching Band. The principal band experience during the fall semester open to all students by audition. Performs for home football games. Practical lab experience for music education majors. Each semester satisfies 1 credit of Physical Activity (Area 9) of the general education requirements. Satisfies large ensemble requirement. 1 credit.

602. Symphonic Band. The principal band experience during the spring semester, open to all students by audition. The Symphonic Band performs original literature as well as

arrangements of standard repertoire. Satisfies large ensemble requirement. 1 credit.

603. *Symphony Orchestra.* A wide variety of symphonic literature is studied and performed. In the second semester the orchestra accompanies soloists in a concerto-aria concert and on occasion combines with choral organizations for the performance of a major work. Open to all students by audition. Satisfies large ensemble requirement. 1 credit.

604. *Concert Choir.* Open to all students by audition, the Concert Choir performs all types of choral literature. In addition to local concerts, the choir tours annually. Satisfies large ensemble requirement. 1 credit.

605. *Chamber Choir.* Open to all students by audition, the Chamber Choir performs chamber vocal literature from madrigals to vocal jazz. 1/2 credit.

610. *Woodwind Ensembles.*

- Sec. 1. Clarinet Choir. 1/2 credit.
- Sec. 2. Flute Ensemble. 1/2 credit.
- Sec. 3. Woodwind Quintet. 1/2 credit.

615. *Brass Ensembles.*

- Sec. 1. Brass Quintet. 1/2 credit.
- Sec. 2. Tuba Ensemble. 1/2 credit.
- Sec. 3. Low Brass Ensemble. 1/2 credit.
- Sec. 4. Valley Slides. 1/2 credit.

616. *Percussion Ensemble.* 1/2 credit.

620. *String Ensemble.* 1/2 credit.

625. *Jazz Ensembles.*

- Sec. 1. Jazz Band. 1/2 credit.
- Sec. 2. Small Jazz Ensemble. 1/2 credit.

630. *Chamber Ensembles.* 1/2 credit.

635. *Handbell Choir.*

- Sec. 1. Beginning. 1/2 credit.
- Sec. 2. Advanced. 1/2 credit.

Courses in Sound Recording Technology

277. *Recording Technology I.* An introduction to the fundamentals of sound recording technology. Topics include sound and listening, the basic audio chain, microphones, analog tape machines, basic mixers, and equipment interface. Mastery of the fundamentals will

facilitate students to engineer simple and multi-microphone two-track stereo recordings. Prerequisite for non-majors: permission of the instructor. 3 credits.

278. *Recording Technology II.* This course begins with multi-track consoles and tape machines, and continues study of multi-track techniques and mixdown, microphone placement, reverberation, equalization, compressors and expanders, noise reduction, and the decibel. Emphasis is on critical listening and practical applications. Students learn to engineer multi-microphone, multi-track recordings and mixdown sessions. Prerequisite: RCT 277. 3 credits.

377. *Recording Technology III.* This course examines advanced techniques of recording and mixing, special effects and digital effects processors, and analog tape machine theory and alignment. Also studied are digital technologies, and time code usage. Mastery of these topics will facilitate students to engineer multi-microphone multi-track production. Prerequisite: RCT 278. 3 credits.

386. *Recital Recording Practicum.* Students record a chamber music performance, applying researched techniques, and produce a recording comparable to commercial release standards. Prerequisite: RCT 377. 1 credit.

388. *Audio Topics Practicum.* Students study topics of individual interest, ranging from research to production, technique, and maintenance. Prerequisite: RCT 377; non-majors require permission of instructor. 3 credits.

487. *Advanced Audio Topics Practicum.* Students study senior level topics of individual interest including advanced research, applications, and production. Prerequisite: RCT 377; non-majors require permission of instructor. 3 credits.

500. *Independent Study.* See requirements on page 28. 1-3 credit(s).

Philosophy (PHL)

The Religion and Philosophy Department is described on page 57.

Degree: Bachelor of Arts with a major in philosophy.

Major: PHL 120, 160, 300; at least one course from PHL 301-336; 12 additional credits in philosophy (24 credits).

Minor: PHL 160, 300; at least one course from PHL 301-336; 9 additional credits in philosophy (18 credits).

Courses in Philosophy

110. Problems of Philosophy. Examination of major philosophical issues and the ways major philosophers have dealt with them. 3 credits.

120. Basic Logic. An introduction to the rules of clear and effective thinking. Attention is given to the logic of meaning, the logic of valid inference, and the logic of factual inquiry. Main emphasis is upon deductive logic. Students are introduced to the elements of symbolic logic as well as to traditional modes of analysis. 3 credits.

160. Ethics. An inquiry into the central problems of values applied to human conduct, with an examination of the responses of major ethical theories to those problems. 3 credits.

215. Social Philosophy. An examination of some of the important philosophical issues, including the ethical and valuational, to be found in the social institutions of politics, law, government, and religion. 3 credits.

220. Political Philosophy. A survey of the different Western philosophies and theories of government, ancient and modern, but especially since the sixteenth century. 3 credits. {Cross-listed as Political Science 220.}

230. Philosophy of Religion. A study of the issues raised for philosophy by contemporary religious and theological thought. The course includes critical examinations of such problems as faith and reason; the meaning of revelation, symbolism, and language; the arguments for the existence of God; faith and history; religion and culture. 3 credits.

240. American Philosophy. A survey of philosophical thought in the United States from colonial period to present, with emphasis on the work of Peirce, James, and Dewey. 3 credits.

300. History of Philosophy. The development of philosophical thought from the pre-Socratics through the nineteenth century, with emphasis on philosophy as a discipline of systematic inquiry. 3 credits.

301–335. Major Authors. Intensive studies of individual great philosophers or principal schools. Prerequisite: PHL 300 or permission. 3 credits.

336. Twentieth Century Philosophy. Examines representative American, British, and Continental philosophers from 1900 to present. Prerequisite: PHL 300 or permission. 3 credits.

360. Business Ethics. An examination of ethics and values within the context of modern corporate organizations. The course considers issues pertinent to corporate responsibility, whistle-blowing, the profit motive, consumerism, bribery, conflict of interest, and cost/benefit analysis. Some attention is given to classical ethical theories; a considerable portion of the course is devoted to case analysis. Prerequisite: MGT 330 or PHL 110 or by permission (management majors must have junior standing). 3 credits.

Physical Education (PED)

The Physical Education Department is described on page 52.

The college does not offer a major or minor in physical education.

Courses in Physical Education

102. Aerobic Exercises. A combination of exercise and dance steps in rhythmic movements. The course promotes the value of a total fitness program, including diet and weight control and heart rate monitoring. 1 credit.

113. Bowling. Instruction in the techniques, etiquette, history and method of scoring. About eight weeks will be spent in league play. 1 credit.

122. Fitness. Examination of varied programs for fitness, with emphasis on diet and weight control, cardiovascular efficiency, strength improvement, and flexibility training. 1 credit.

125. Golf. Instruction in the techniques, tactics, rules and etiquette of golf. 1 credit.

135. Racquetball. Instruction in the tactics, techniques and different forms of competition used in racquetball. 1 credit.

146. Tennis. Instruction in the techniques, rules and tactics, with extensive practice in singles and doubles. 1 credit.

160. Swimming. Beginning, intermediate and advanced instruction. 1 credit.

162. Water Exercise. Includes water-walking, water running and other aerobic water exercises for swimmers and non-swimmers. Utilizes water as resistance to improve strength and cardiovascular endurance. 1 credit.

170. Skiing. Beginning, intermediate and advanced instruction at Blue Marsh Ski Area. 1 credit.

180. Team Sports. Softball, volleyball and basketball, four to five weeks of each, emphasizing team concepts. 1 credit.

One semester of Music 601, Symphonic and Marching Band (1 credit), fall semester only, may be used to satisfy 1 credit of Physical Activity (Area 9) of the General Education requirements. The two credit requirement of Area 9 may be satisfied by electing Music 601, Symphonic and Marching Band (1 credit), fall semester only, in two different years.

Physics (PHY)

The Physics Department is described on page 52.

Degree: Bachelor of Science with a major in physics.

Major: PHY 111, 112, 211, 311, 312, 321, 322, plus 6 additional semester hours (at least 2 in experimental physics); MAS 161, 162, 211 and 266 or MAS 111, 112, 211 and 266. (43–46 credits)

Minor: PHY 111, 112 (or 103, 104), 211, plus 6 credits in physics at or above the 200 level. (18 credits)

Courses in Physics

100. Physics and Its Impact. A course that acquaints the student with some of the important concepts of physics, both classical and modern, and with the scientific method, its nature and its limitations. The role of physics in the history of thought and its relationships to other disciplines and to society and government are considered. The weekly two-hour laboratory period provides experience in the acquisition, representation, and analysis of experimental data, and demonstration of the physical phenomena with which the course deals. 4 credits.

103,104. General College Physics I,II. An introduction to the fundamental concepts and laws of the various branches of physics, including mechanics, heat, sound, electricity, magnetism, optics, and atomic and nuclear structure, with laboratory work in each area. 4 credits per semester.

110. The Physics of Music. The study of wave motion, analysis and synthesis of waves, resonance, physical characteristics of music sounds, musical instruments, the reproduction and amplification of sound, and the acoustical properties of rooms. A working knowledge of algebra is required. 3 credits.

111,112. Principles of Physics I, II. An introductory course in classical physics, designed for students who desire a rigorous mathematical approach to college physics. Calculus is used throughout. The first semester is devoted to mechanics and heat, and the second semester to electricity, magnetism, and optics, with laboratory work in each area. Prerequisite or corequisite: MAS 111 or 161. 4 credits per semester.

211. Atomic and Nuclear Physics. An introduction to modern physics, including the foundation of atomic physics, quantum theory of radiation, the atomic nucleus, radioactivity, and nuclear reactions, with laboratory work in each area. Prerequisite: PHY 104 or 112, or permission. 4 credits.

212. Introduction to Electronics. The physics of electrons and electronic devices, including diodes, transistors, power supplies, amplifiers, oscillators, switching circuits, and integrated circuits, with laboratory work in each area. Prerequisite: PHY 104 or 112, or permission. 4 credits.

311,312. Analytical Mechanics I,II. A rigorous study of classical mechanics, including the motion of a single particle, the motion of a system of particles, and the motion of a rigid body. Damped and forced harmonic motion, the central force problem, the Euler description of rigid body motion, and the Lagrange generalization of Newtonian mechanics are among the topics treated. Prerequisites: PHY 111 and MAS 266. 3 credits per semester.

321,322. Electricity and Magnetism I,II. Theory of the basic phenomena of electromagnetism together with the application of fundamental principles of the solving of problems. The electric and magnetic properties of matter, direct current circuits, alternating current circuits, the Maxwell field equations, and the propagation of electromagnetic waves are among the topics treated. Prerequisites: PHY 112 and MAS 266. 3 credits per semester.

327,328. Experimental Physics I,II. Experimental work selected from the area of mechanics, AC and DC electrical measurements, optics, atomic physics, or nuclear physics, with emphasis on experimental design, measuring techniques, and analysis of data. Prerequisite: PHY 211. 1 credit per semester.

350. Audio Electronics. A study of electronics as used in audio engineering. The course examines RC and LC circuits, filters, impedance, audio frequency amplifier circuits, and basic digital theory. Laboratory work is included. Prerequisite: PHY 212. 3 credits.

421,422. Modern Physics I,II. A study of selected topics in modern physics, utilizing the methods of quantum mechanics. The Schrodinger equation is solved for such systems as potential barriers, potential wells, the linear oscillator, and the hydrogen atom. Perturbation techniques and the operator formalism of quantum mechanics are introduced where appropriate. Prerequisites: PHY 211 and MAS 266, or permission. 3 credits per semester.

430. The Teaching of Physics in Secondary Schools. A course designed to acquaint the student with some of the special methods, programs, and problems in the teaching of physics in secondary schools. Required for secondary certification in physics. 1 credit.

Political Science (PSC)

The Economics and Political Science Department is described on page 53.

Degree: Bachelor of Arts with a major in political science.

Major: PSC 111, 112, 210, 220, 230 and eight additional elective courses in political science (one of these elective courses may be from another social science with the approval of the student's major adviser) (39 credits).

Minor: PSC 111, 112, 210, 220, 230, and one additional elective course in political science (18 credits).

Courses in Political Science

111. American National Government I. The nature of American democracy, constitutional foundations of American government, the federal system, civil rights and liberties, political behavior, political parties, and campaigns and elections. 3 credits.

112. American National Government II. The structures and functions of American government (Presidency, Congress, courts, and bureaucracy), and the foreign and domestic policy making process. 3 credits.

210. Comparative Government. A comparative study of important political systems of the world, including an introduction to the basic methodologies. PSC 111 and 112 strongly recommended as preparation. 3 credits.

216. Quantitative Methods in Behavioral Science. Evaluation of behavioral research emphasizing the descriptive and inferential statistics used in experiments and correlational studies. Pre-requisite or corequisite: PSY 100 or 120. 3 credits. {Cross-listed as Psychology 216.}

220. Political Philosophy. A survey of Western philosophies and theories of government, ancient and modern. {Cross-listed as Philosophy 220.}

230. International Politics. The origin, forms, dynamics, and prospects of the international political pattern, with emphasis on current developments and changing concepts in world politics. 3 credits.

240. Public Administration. An examination of the structures through which governments try to carry out their policies. The course covers both the practical matters of accountability and efficiency, and the analytical concerns of organizational theory and bureaucratic culture. 3 credits.

250. Public Policy Analysis. This course gives students an understanding of the public policy process and of policy analysis at the national level of government. The course includes theories of policy-making as well as an examination of such substantive policy areas as foreign, defense, subsidy, and redistributive policies. Prerequisites: PSC 111 and 112, or permission of the instructor. 3 credits.

310. Scope and Methods of Political Science. A course in the conduct and interpretation of research in political science. Topics include formulation of a research problem, research design, techniques of scaling and measurement, data collection and analysis, and writing the research report. Prerequisite: permission of the instructor; MAS 170, is strongly recommended. 3 credits.

312. American Foreign Policy. A survey of the external relations of the American government, emphasizing twentieth century developments. Subjects include diplomacy, military affairs, geographic and regional problems, trade and aid, technology and underdevelopment, alliances, nuclear problems, and opposing ideologies. PSC 111 and 112 strongly recommended as preparation. 3 credits.

315. American Constitutional Law I. Constitutional law and interpretation and the powers of government. Topics include judicial review, national supremacy, private property, contracts, commerce powers, equal rights, and civil liberties. PSC 111 and 112 strongly recommended. 3 credits.

316. American Constitutional Law II. Constitutional law and interpretation and the Bill of Rights. Emphasis is given to civil liberties, equal rights, and rights of the accused. PSC 111 and 112 strongly recommended. 3 credits.

320. Electoral Politics. The dynamics of the electoral process, with emphasis on presidential and congressional elections and including the role of parties, public opinion, and interest groups. 3 credits.

330. State and Local Government. This course covers the governmental institutions and characteristics of state and local political systems and the major inter-governmental problems in state and local relations with the federal government. 3 credits.

340. The Third World. A survey of the developing nations of Latin America, Asia, Africa, and the Middle East. The political economy of development, in both its domestic and international dimensions is emphasized. Prerequisites: PSC 210 and 230, or permission of the instructor. 3 credits.

350. Select Problems. A course to give students a chance to explore in depth a topic of special interest. 3 credits.

360. Modern Communism. A survey of the communist world, stressing the development of Marxist thought and its evolving application in the Soviet Union, China, and other communist states. Prerequisite: PSC 210 and 230, or permission of the instructor. 3 credits.

415. Foundations of American Law. An historical survey of American legal development from colonial times to the present. The course is a supplement to Constitutional Law. Strongly recommended for pre-law students. Prerequisite: PSC 111, 112 or permission of the instructor. 3 credits.

420. Seminar in World Politics. A consideration of significant theories of international relations and their applicability to such selected contemporary issues as superpower relations, conflict resolution, arms control, and economic interdependence. Prerequisites: PSC 230, or permission of the instructor. 3 credits.

Pre-Law Program

Although there is no pre-law major or department, a pre-law student is advised to take certain courses which will help prepare him or her for law school and a legal career. Each student should confer with the pre-law adviser in selecting a specific pattern of courses appropriate to that student's objectives. Generally recommended courses are as follows: ACT 161, ECN 110, 120, MGT 371, 372, PSC 111, 112, 315, 316, and 415.

Pre-Medical, Pre-Dentistry, Pre-Veterinary

Lebanon Valley College offers pre-professional information in the medical (medicine, osteopathy, optometry, podiatry, pharmacy, chiropractic and dentistry) and veterinary fields. Students interested in one of these careers usually follow a science curriculum with a major in biochemistry, biology or chemistry.

In addition to the basic natural sciences suited to advanced professional study, the student who is interested in veterinary medicine may participate in a cooperative program between the college and local veterinarians, specializing in both small and large animal medicine. Students not only receive credit for the work, but also gain valuable experience in the field.

For those students interested in podiatry, Lebanon Valley College and the Pennsylvania College of Podiatric Medicine have established an accelerated curriculum consisting of a minimum of 90 undergraduate semester hours and four years of podiatric medical education. Following three years of study at Lebanon Valley College a student may be recommended for further study at the Pennsylvania College of Podiatric Medicine. Lebanon Valley College then awards the baccalaureate degree, with a major in biochemistry, biology or chemistry, to those students who complete successfully one year of basic science education at the Pennsylvania College of Podiatric Medicine.

A health professions committee coordinates the various plans of study in addition to offering advice and assistance to those persons interested in health professions careers.

Lebanon Valley College graduates have been admitted to some of the nation's finest schools including Johns Hopkins University Medical School, The University of Pennsylvania, The University of Pittsburgh, Jefferson Medical School, The Milton S. Hershey Medical Center, Temple University, The University of Maryland, The Philadelphia College of Osteopathic Medicine, The Pennsylvania College of Podiatric Medicine and the Pennsylvania College of Optometry.

Psychobiology (PBI)

The major in psychobiology is offered jointly by the Departments of Biology, described on page 30 and Psychology, described on page 55.

This inter-disciplinary major emphasizes the physiological substrates and consequences of behavior. Consisting of a combination of psychology and biology course work, the program prepares students for graduate study in medicine, veterinary medicine, graduate programs in psychology, animal behavior, physiological psychology, psychopharmacology, behavior genetics, and neuroscience, as well as research positions in industry, universities, hospitals, and government laboratories.

Degree: Bachelor of Science with a major in psychobiology.

Major: BIO 111, 112, 201, 322 (16 credits); PSY 200, 335, 358 plus two courses from the following: PSY 120, 216, 355, 431 (16 credits); PSY 491 or BIO 491, BIO 499, BIO 500 or PSY 500 (8 credits); CHM 111, 112, 113, 114 (8 credits); MAS 161 and CSC 125 or 170 (6 credits); plus 8 additional credits in the sciences in consultation with adviser. Recommended CHM 213, 214, 215, 216, PHY 103, 104 or 111, 112. 62 total credits.

Courses in Psychobiology

358. Physiological Psychology. A study of the biological mechanisms underlying behavior processes. The course focuses on the physiology of reflexes, sensation and perception, learning and memory, sleep, ingestive behaviors and motivation and emotion. The laboratory portion of the course includes sheep brain dissection, rodent stereotaxic neurosurgery, and behavioral observation. Prerequisite: PSY 100,120,200 or permission; completion of a biology course is recommended. 3 credits. {Cross-listed as Psychology 358.}

499. Psychobiology Seminar. Readings, discussions, and reports on selected topics in psychobiology. This course may be repeated. 1 credit.

Psychology (PSY)

The Psychology Department is described on page 55.

Degree: Bachelor of Arts with a major in psychology.

Major: PSY 100, 120, 200, 216, 443; one course from: 335, 355, 356, 358; one course from 321, 332, 343, 346, 443; and three additional courses from a single specialty area (31 credits). For a concentration in clinical/counseling psychology the additional courses should be from 332, 335, 339, 343, 431, 432. For a concentration in experimental/physiological psychology the additional courses should be from 335, 346, 355, 356, 358, 359. For a concentration in organizational/industrial psychology the additional courses should be from 332, 335, 337, 339, 346, 359. For a concentration in developmental psychology the additional courses should be from 321, 322, 326, 343, 346, 359.

Minor: PSY 100, 120, 200, 216 and three elective courses in psychology (22 credits). For an emphasis in clinical/counseling psychology the electives should be from 332, 343, 431, 432.

For an emphasis in experimental/physiological psychology two of the electives should be from 335, 346, 355, 357, 359, 350, 443. For an emphasis in organizational/industrial psychology two of the electives should be from 332, 335, 337, 339, 346. For an emphasis in developmental psychology two of the electives should be from 321, 322, 326, 343.

Courses in Psychology

100. Psychology: The Individual and Society. An introduction to psychology as a social science. The emphasis is on the interactions of the individual and society that influence development, learning, motivation, sexuality, and identity, as well as social and emotional adjustment. 3 credits.

120. Introduction to Experimental Psychology. This course focuses on psychology as a science. It emphasizes laboratory research, and covers topics relevant to scientific research, and science in general (eg. research design, experimental methods, data analysis and interpretation, and scientific ethics). Various topics of experimental psychology (eg. sensory and perceptual processes, learning and memory, psychological testing, and social behaviors) are discussed. 4 credits.

200. Advanced General Psychology. A survey course examining the relationship between research and theory in the field of psychology. The course is intended to give the student an overview of all areas of specialization within psychology. 3 credits.

216. Quantitative Methods in Behavioral Science. Evaluation of behavioral research emphasizing the descriptive and inferential statistics used in experimental research and correlational studies. Prerequisite or corequisite: PSY 100, 120 or 200. 3 credits. {Cross-listed as Political Science 216.}

220. Educational Psychology. Studies of cognitive, behavioral, emotional and social processes in the school; required for certification in elementary and music education. Prerequisite: PSY 100,120 or 200. 3 credits.

321. Psychology of Child Development. A study of the patterns of cognitive, social and emotional developmental changes occurring during childhood. Special attention is given to research studies, developmental mechanisms and theories of development. Prerequisite: PSY 100,120 or 200. 3 credits.

322. Psychology of Adolescent Development. A study of the psychological characteristics and changes occurring during adolescence. Topics include psychological development, social influences, cognitive and intellectual development, emotional development, identity and self-concept, sexual development, values, and transition to adulthood. Prerequisite: PSY 100, 120 or 200. 3 credits.

326. Psychology of Adult Development. A study of research literature and theories concerned with psychological change in the adult, from late adolescence to death. The course

includes the works of such theorists as Maslow and Erikson. Prerequisite: PSY 100, 120 or 200. 3 credits.

332. *Psychological Testing and Assessment.* Introduction to the principles of psychological measurement, methods of test design and construction, and applications and interpretations of existing psychological tests. Prerequisite: PSY 100, 120 or 200. 3 credits.

335. *Research Design and Statistics.* A survey of experimental designs utilized in psychological investigations. Designs include factorial experiments, field studies, correlative designs and multivariate techniques. The primary readings are selected from current research in clinical, educational, organizational, and laboratory settings. Prerequisites: PSY 100, 120, 200, 216 or permission. 3 credits.

337. *Organizational Psychology.* A study of psychological principles as applied to problems of organizational behavior, with emphasis on personnel selection, human engineering, group dynamics, systems design, training, leadership, and performance evaluation. Prerequisite: PSY 100, 120 or 200. 3 credits.

339. *Career Counseling.* The course surveys assessment of skills and competencies, occupational research, decision-making, and job search strategies. Students are encouraged to apply the theories of career counseling to their own vocational decisions and goals. Prerequisite: PSY 100, 120, 200 or permission. 3 credits.

343. *Personality.* A study of the major theories of personality, emphasizing psychoanalysis, humanistic psychology, behaviorism, social learning, and trait theory. Prerequisite: PSY 100, 120 or 200; junior or senior standing, or permission. 3 credits.

346. *Social Psychology.* A study of the inter- and intra-personal relationships between individuals and groups, with emphasis on theories and research studies. The topics covered may include attitude development and change, conformity, persuasion, person perception, attribution, attraction, and group processes. Prerequisites: PSY 100, 120 or 200; junior or senior standing, or permission. 3 credits.

355. *Learning and Memory.* This course surveys psychological research on learning and memory. Topics include classical and instrumental conditioning, verbal learning, problem solving, basic memory processes, and models of learning and memory. Prerequisite: PSY 100, 120, 200 or permission. 3 credits.

356. *Sensory and Perceptual Processes.* This course focuses on the structures and functions of sensory systems. It includes the study of the visual system as a model to delineate information processing strategies in the eye, the optic nerve, and the brain. The course will delineate sensory from perceptual processes. The perception of visual, olfactory, auditory, gustatory and vestibular and cutaneous information will be discussed from experimental, physiological, and philosophical perspectives. Prerequisite: PSY 100, 120, 200 or permission. 3 credits.

358. *Physiological Psychology.* A study of the biological mechanisms underlying behavioral processes. The course focuses on the physiology of reflexes, sensation and perception, learning and memory, sleep, and motivation and emotion. The laboratory portion of the course includes sheep brain dissection and behavioral observation. Prerequisite: PSY 100, 120, 200 or permission; completion of a biology course is recommended. 3 credits. {Cross-listed as Psychobiology 358.}

359. *Research Practicum.* A course to provide students the opportunity to develop a research idea and carry it through to completion including the review of the literature, proposal, pilot study, data analysis, write-up, and presentation. The aim of the course is to give students practical experience in research so that they have a better appreciation of the nature of the research process that they read about in their courses. 3 credits.

431. *Abnormal Behavior and Experience.* A study of mental, emotional and behavioral problems, including alcohol and drug abuse, brain disorders, criminal and psychopathic behavior, neuroses, psychophysiological reactions, psychoses, sexual deviations, subnormal intelligence, and suicide. Prerequisites: PSY 100, 120 or 200; junior or senior standing or permission. 3 credits.

432. *Introduction to Clinical Psychology.* A study of the ways psychologists assist persons and groups. Particular attention is given to assessment, individual and group therapy, marriage and family counseling, and community psychology. Prerequisites: PSY 100, 120 or 200; PSY 431 or nursing training with psychiatric affiliation, or permission. 3 credits.

443. *History and Theory.* Studies the history of psychology including philosophical concepts, early schools of psychology, important trends, and famous psychologists. Prerequisites: PSY 200; junior or senior standing; or permission. 3 credits.

Recording Technology

See Sound Recording Technology on page 105.

Religion (REL)

The Religion and Philosophy Department is described on page 57.

Degree: Bachelor of Arts with a major in religion.

Major: REL 110, 115, 116, 201, 311, 312, and four additional courses in religion, of which at least one must be in 200-level courses and one in 300-level courses (30 credits).

Minor: REL 110, 115, 116, one from 201, 252, 311, 312; and two additional courses in religion (18 credits).

Courses in Religion

110. *Introduction to Religion.* An exploration of the many dimensions of religion as a central human experience: self and meaning, religious expression, religious knowledge, religion in its cultural context, and religion and the natural order. 3 credits.

115. *World Religions I.* An introduction to the major religions of African and middle-eastern origin, with emphasis on Judaism, Christianity and Islam. 3 credits.

116. *World Religions II.* An introduction to the major religions of far-eastern origin with emphasis on the religious traditions of India, China and Japan. 3 credits.

120. *Religion in America.* A study of the origin and development of religious expression in America, with particular attention to Protestantism, Roman Catholicism, and Judaism. 3 credits.

160. *Religion and Ethics.* A study of religion in its relation to moral values, both personal and social, with emphasis on Christian ethics. 3 credits.

201. *Biblical Literature.* A study of the Bible, including its literary forms and its historical and social context. 3 credits.

202. *The Prophets.* Studies the lives and writings of the Old Testament prophets and an analysis of their contributions to Judeo-Christian religious thought. 3 credits.

211. *Life and Teachings of Jesus.* An intensive study of the life and message of Jesus as set forth in the Gospels. 3 credits.

212. *Life and Epistles of Paul.* A study of the life, writings, and theological thought of Paul and their relationship with the early Church. 3 credits.

230. *American Folk Religion.* A study of the folk traditions of selected American denominations and sects and of the theological implications of secular folklore. Emphasis will be placed on field work as well as on analysis. 3 credits. {Cross-listed as American Studies 230.}

251. *Judaism.* A survey of the development of Judaism and its contemporary teachings and practices. 3 credits.

252. *Christianity.* A study of the development of the major forms of Christianity including doctrine, ethics, worship, church structure and relationship to culture. 3 credits.

253. *Buddhism.* A study of the development of Buddhism, including its teaching, practice and influence as one of the great missionary religions. 3 credits.

311. History of Christianity I. The story of Christianity from the apostolic age to the Renaissance. 3 credits.

312. History of Christianity II. The story of Christianity from the Protestant reformation to the ecumenical era. 3 credits.

322. Sociology of Religion. The structures and functions of religious organizations and phenomena with emphasis on the varieties of religious expression in America. 3 credits. [Cross-listed as Sociology 322.]

332. Religion in Literature. A study of religious and moral issues in contemporary fiction, poetry and non-fiction. 3 credits.

342. Contemporary Religious Issues. An advanced study of selected authors or problems arising in contemporary religion. 3 credits.

352. Theology Seminar. An intensive study of individual great theologians or theological traditions. 3 credits.

Secondary Education (Teacher Certification) (SED)

The Education Department is described on page 34.

There is no major in education for those interested in secondary teaching. Students complete the requirements in their chosen major and the designated professional education courses.

Degree: Bachelor of Arts or Bachelor of Science in the chosen major. (Majors: biology, chemistry, English, French, German, Spanish, mathematics, physics, and social studies.)

Secondary Teacher Certification: Candidates must complete 21 credits in professional education courses and the approved program in the chosen major. EDU 110 should be taken in the sophomore year and SED 430 in the junior year. SED 280 should be taken at least twice prior to SED 440. SED 420 and 440 comprise the student teaching semester of the senior or postgraduate year.

The minor in education is described on page 74.

Courses in Secondary Education

280. Field Practicum in the Secondary School. Supervised field experiences in appropriate school settings. Designed to offer practical experiences for prospective secondary teachers or students planning an educational ministry. Prerequisites: permission. 1–3 credits.

420. Human Growth and Development. A survey of human characteristics, research in

developmental psychology and their implications for teaching and learning. Prerequisite: EDU 110. 3 credits.

430. *Practicum and Methods.* A study of the basic principles and procedures for secondary classroom management and instruction. Prerequisite: EDU 110. 3 credits.

431. *Social Studies in Secondary Education.* A study of curricular patterns and teaching methodologies for the social studies. Students will prepare instructional objectives, select and organize subject matter, investigate a variety of learning activities and strategies for developing inquiry, decision-making, and values. 1–2 credits.

440. *Student Teaching.* Students spend an entire semester in an area school under the supervision of a carefully selected cooperating teacher. Open to seniors only. Requirements are:

- (1) a grade point average of at least 2.00 in the major field
- (2) completion of all courses required of the major for student teaching
- (3) completion of professional education courses required for student teaching
- (4) approval of the major adviser and of the director of secondary student teaching.

Prerequisites: EDU 110, SED 430. SED 420 is normally taken concurrently with SED 440. 3–12 credits.

Social Work (SWK)

The Sociology and Social Work Department is described on page 58.

Minor: SOC 110; SWK 262, 272, 331, 341; 6 credits of SWK 400; one course from SOC 210, 230, 261, 278, 324, 331, 333, 351, 362, 372; SWK 272, 345, 499. Students majoring in sociology shall elect SWK 499 and one course in sociology in addition to their major requirements (24 credits).

Courses in Social Work

262. *Social Welfare.* An introduction to social welfare policies and institutions including the evolution of the welfare system in our society and its approach to social problems. Focuses upon controversies relevant to public welfare. Prerequisite: SOC 110. 3 credits.

272. *Human Behavior in the Social Environment.* An examination of the interrelation of biological, psychological and sociocultural systems and their effects on human development and behavior. A life span perspective is used to develop an understanding of the total person as he/she functions in relation to his/her environment at each stage in the developmental process. The impact of diversity in ethnic background, race, class, sexual orientation and culture in a pluralistic society will also be addressed. Prerequisite: SOC 110. 3 credits.

331. *Social Work Theory.* A consideration of the theories that underlie social work intervention, introducing the social systems perspective with emphasis on the social work

profession's knowledge base, values and skills. Prerequisite: SWK 262. 3 credits.

341. Social Work Practice I. An examination of the knowledge, attitudes and skills required for social work practice with emphasis on social casework and group work dynamics. Prerequisite: SWK 331. 3 credits

342. Social Work Practice II. An examination of the knowledge, attitudes, and skills required for social work practice with emphasis on modern organizations, administration, and communities issues. Prerequisite: SWK 331. 3 credits.

345. Family Therapy. An introduction to family and small group intervention focusing upon the family as a system, group structure and dynamics, and theories and techniques of intervention. Prerequisite: SOC 230 and SWK 341 or permission. 3 credits.

499. Seminar. Detailed study of a selected social work area. Topics may vary. This course is conducted as a seminar requiring extensive student participation. Prerequisite: SWK 341 or 342. 3 credits.

Sociology (SOC)

The Sociology and Social Work Department is described on page 58.

Degree: Bachelor of Arts with a major in sociology.

Major: SOC 110, 311, 421, 499, 15 additional credits in sociology (27 credits).

Minor: SOC 110, 311, 421; one course from SOC 210, 278, 324, or 331; one course from SOC 211, 230, 261, 322, 333, 340, 351, 362, 372, 382; one elective course in sociology. (18 credits).

Courses in Sociology

110. Introduction to Sociology. A study of the basic sociological perspective including the nature of society, the influence of culture, the development of the self, and group dynamics. Specific topics include deviance and social control, the family and other institutions, racism, sexism and poverty. 3 credits.

120. Introduction to Anthropology. Introduction to both physical and cultural anthropology including human evolution, human variation, and cross-cultural analysis, and comparison. 3 credits.

210. Social Problems. Contemporary social problems as seen through different analytical perspectives. Problems covered include war and peace, pollution and environmental exploitation, crime and delinquency, and emotional and physical illness. Prerequisite: SOC 110 or GED 140, or HON 202. 3 credits.

211. Urbanology. An analysis of the city as a unique form of social organization. From a multi-disciplinary perspective, the course presents the nature of urbanization and the impact of urbanism on contemporary society. Prerequisite: SOC 110 or GED 140 or HON 202. 3 credits.

230. Sociology of Marriage and the Family. An overview of marriage and the family focusing upon love, mate selection, alternative life styles, marital communication, conflict resolution, parenting, divorce and widowhood. Utilizes an historical and cross-cultural perspective in addition to sociological analysis. Prerequisite: SOC 110, or GED 140, HON 202. 3 credits.

261. The Aged and Aging. An investigation of the process of aging and contemporary issues related to the elderly. Topics covered include Alzheimer's disease, retirement, stereotypes of the elderly and contributions of the elderly to society. Prerequisite: SOC 110, or GED 140, or HON 202. 3 credits.

278. Juvenile Delinquency. An examination of the causes and effects of juvenile delinquency, the juvenile justice system and treatment programs for the juvenile offender. Prerequisite: SOC 110, or GED 140, or HON 202. 3 credits.

311. Research Methods. A study of the basic concepts and skills involved in critically evaluating and carrying out social scientific research. Topics include values and ethics of research on human behavior, research design, interviewing and questionnaire construction. Prerequisite: SOC 110, junior standing or permission. 3 credits.

322. Sociology of Religion. The structure and functions of religious organizations and phenomena with emphasis on the varieties of religious expression in America. Prerequisite: SOC 110, or GED 140, or HON 202. 3 credits. {Cross-listed as Religion 322.}

324. Medical Sociology. An examination of the societal bases of health, illness and health care. The course will include an examination of the three components of medicine: the patient, the medical professional and the health care organization. Specific topics will include: the role of the patient; doctor-patient relationships; the socialization of medical professionals; the hospital as a complex organization, cross-cultural comparisons of health care and current topics of concern such as the AIDS epidemic, new technologies, and social response to the terminally ill patient. 3 credits.

331. Criminology. An examination of the causes of crime. Special attention is given to violent crime, homicide, and rape. In addition, crimes such as arson, robbery, burglary and white collar crime are covered. The question of whether or not such victimless crimes such as pornography, prostitution and drug use should be considered crimes is explored. Prerequisite: SOC 110, or GED 140, or HON 202. 3 credits.

333. Criminal Justice. A sociological, historical, and philosophical examination of punishment and the criminal justice system. Rights of the accused, victimology, prisons, and the

death penalty are studied. Prerequisite: SOC 110, or GED 140, or HON 202. 3 credits.

340. *Group Structure and Dynamics.* An overview of the theory and research on small group organization and process including issues related to leadership, effective communication in groups, conformity and influence. Application of basic principles to practical situations. Exercises designed to improve group leadership and participation skills. Prerequisite: SOC 110, or GED 140, or HON 202. 3 credits.

351. *Death and Dying.* Exploration of the basic legal, medical, ethical and social issues related to contemporary understanding of death and dying. Examines the stages of dying, the grief process, euthanasia, suicide, the hospice movement and life after death. Prerequisite: SOC 110, or GED 140, or HON 202. 3 credits.

362. *Race, Minorities and Discrimination.* An examination of the patterns of structured inequality in American society, including the class system and racial and ethnic groups. Prerequisite: SOC 110, or GED 140, or HON 202. 3 credits.

371. *Child Abuse.* The study and analysis of child abuse in its various expressions with additional focus on physical and sexual abuse. Emphasis will be on models and theories of causation, dynamics, treatment and research. 3 credits.

372. *Substance Abuse.* An examination of the problems associated with substance abuse including a study of the prevalent myths concerning substance abuse, an exploration of the causes of substance abuse and an exploration of how it affects the individual, the family and society as a whole. In addition, the course will examine current methods of intervention and treatment. Prerequisites: SOC 110, or GED 140, or HON 202. 3 credits.

382. *Sociology of the Mass Media.* Seminar on how society shapes the mass media and the effects of the mass media on individuals and society. Topics include propaganda, television violence and aggression, and advertising. Special attention is given to values and images portrayed by the mass media. Prerequisite: 6 credits in sociology or permission. 3 credits.

421. *Social Theory.* An intensive examination of the major sociological theorists and movements. Prerequisite: 12 credits in sociology. 3 credits.

499. *Seminar.* A critical analysis of selected themes and issues in contemporary sociology. Topics may vary. This course is conducted as a seminar requiring extensive student participation. Prerequisite: SOC 421. 3 credits.

Sound Recording Technology

See Sound Recording Technology on page 105.

Spanish (SPA)

The Foreign Languages Department is described on page 38.

Degree: Bachelor of Arts with a major in Spanish.

Major: 24 credits in Spanish above the intermediate level; FLG 250 (27 credits). For teaching certification, FLG 440 is required.

Minor: 18 credits in Spanish above the intermediate level. Courses in advanced conversation and composition as well as in culture are strongly recommended.

Courses in Spanish

101,102. Elementary Spanish I,II. Introductory courses in Spanish. 3 credits.

201,202. Intermediate Conversational Spanish I,II. A review of Spanish grammar, and practice in conversation, comprehension, reading and writing. Prerequisite: SPA 102 or equivalent. 3 credits.

311. Introduction to Spanish Literature. Practice in the careful reading of literary texts and in the four basic language skills. Prerequisite: SPA 202 or equivalent. 3 credits.

312. Contemporary Literature. Readings in the works of living Spanish authors. Attention both to individual style and the relationship of the writer to current problems. Prerequisite: SPA 202 or equivalent. 3 credits.

315. Hispanic Culture. A study of Hispanic culture and language, with emphasis on the culture as found in modern Spain and its reflection in America. Prerequisite: SPA 202 or equivalent. 3 credits.

316. Advanced Conversation and Composition. Intensive practice in spoken and written Spanish on an advanced grammatical and stylistic level, with emphasis on the use of language in practical situations. Prerequisite: SPA 202 or equivalent. 3 credits.

320. Business Spanish. An introduction to the language of business and business practices. Prerequisite: SPA 202 or equivalent. 3 credits.

410. Spanish Literature of the Middle Ages and Renaissance. A study of the outstanding works of the period. Prerequisite: SPA 311 or 316 or permission. 3 credits.

420. Spanish Literature of the Golden Age. A study of the major works of the period. Prerequisite: SPA 311 or 316 or permission. 3 credits.

430. *Spanish Literature and the Eighteenth and Nineteenth Centuries.* Readings from the Enlightenment in Spain, and an examination of the major works of romanticism and realism. Prerequisite: SPA 311 or 316 or permission. 3 credits.

440. *Spanish Literature of the Twentieth Century.* A study of the literary movements of the century, starting with the Generation '98 and modernism. Prerequisite: SPA 311 or 316 or permission. 3 credits.

450. *Spanish-American Literature of the Twentieth Century.* A study of the important writers of the century, with emphasis on recent developments in the literature of Spanish-America. Prerequisite: SPA 311 or 316 or permission. 3 credits.

Teacher Certification

See Elementary Education on page 75 or Secondary Education on page 119.



Faculty interaction with students is an important aspect of the programs offered at Lebanon Valley College.

GRADUATE ACADEMIC PROGRAMS

MBA Program

The Lebanon Valley College MBA Program is an interdisciplinary program designed to prepare graduates for managerial responsibilities at various levels of business organizations. The program provides a strong theoretical foundation as well as operational expertise in the areas of finance, management, marketing, human resource management and production and service management.

The MBA Program at Lebanon Valley College is a unique program that combines liberal arts/general education coursework with career preparation in the field of business administration. The interdisciplinary nature of the curriculum includes standard MBA level courses along with exposure to courses in Corporate and Executive Communications, Executive Leadership and Organizational Ethics.

Every MBA candidate must complete 27 credits of core courses and 9 credits of electives. All courses in the undergraduate common body of knowledge also must be completed successfully. Courses in the Lebanon Valley College MBA Program are taught on the Annville and Lancaster campuses.

MBA Faculty

Sharon F. Clark, graduate associate professor of business law and labor relations.
J.D., University of Richmond.

Dr. Clark has several years experience in private law practice and several years as a supervisory tax attorney with the Internal Revenue Service.

Dennis N. Eshleman, graduate adjunct assistant professor of marketing.
M.B.A., Columbia University.

Mr. Eshleman is a manager for New Product Development for Hershey Foods.

Bryan V. Hearsey, graduate professor of quantitative studies.
Ph.D., Washington State University.

Dr. Hearsey's specialty is actuarial science.

Edward H. Krebs, graduate assistant professor of managerial economics and entrepreneurship.
Ph.D., Michigan State University.

Dr. Krebs previously served as an economic assistant to the Secretary of Agriculture and as a private consultant. His interests are in environmental and resource economics.

David I. Lasky, graduate professor of organizational behavior.
Ph.D., Temple University.

Organizational behavior, research design, and career counseling are the focus of his teaching interests. His current research is in the area of organizational change in the public sector and patients rights.

Robert W. Leonard, graduate assistant professor of management.

M.B.A., Ohio State University.

Mr. Leonard's teaching specialties include finance, production and service management, organizational behavior and development, and labor and industrial relations.

Leon E. Markowicz, graduate professor of communications and leadership studies.

Ph.D., University of Pennsylvania.

He serves local business as a communications consultant. Dr. Markowicz is a Fellow of the Pennsylvania Writing Project and is active in the Lancaster-Lebanon Writing Council.

Daniel B. McKinley, graduate assistant professor of leadership.

M.A., University of Maryland. M.A.L.S., Wesleyan University.

Mr. McKinley maintains an interest in small group development and offers leadership laboratories for communication skills development.

Barney T. Raffield III, graduate associate professor of management.

Ph. D., Union Graduate School.

Dr. Raffield teaches courses in marketing and international business management.

Gail Sanderson, graduate assistant professor of managerial accounting.

M.B.A., Boston University, CPA.

Ms. Sanderson has professional experience in accounting (public and private sectors); income tax; computer systems analysis and design.

Warren K. A. Thompson, graduate associate professor of organizational ethics.

M.A., University of Texas.

His teaching specialties are philosophical ethics and business and organizational ethics.

Horace W. Tousley, graduate associate professor of quantitative studies.

M.S.I.E., University of Alabama.

Mr. Tousley, a career military logistician and operations research practitioner, is interested in military modeling, quantitative methods and applications. He teaches quantitative analysis.

Richard G. Stone, adjunct associate professor of management.

Ph.D., Temple University.

Dr. Stone teaches operations management and strategic management.

Randolph L. Trostle, adjunct associate professor of finance.

Ph.D., Lehigh University.

Dr. Trostle teaches finance.

MBA Admissions

All candidates must have a bachelor's degree from an accredited college or university.

All candidates must submit a current resume and a completed application form with the required application fee. They must take a GMAT examination and have the official test results sent to the Continuing Education Office. They must ask two supervisors at their place of employment to complete and forward confidentially to the Continuing Education Office evaluation and recommendation forms. Official transcripts of all undergraduate work and any graduate courses to be considered for transfer must be sent by the respective colleges or universities to the Continuing Education Office.

All candidates are required to visit the campus for a personal interview prior to admission.

Graduate admissions are on a rolling basis; action will be taken quickly after all paperwork has been processed. Candidates must confirm their acceptance in writing within 30 days of the date of the admission letter.

MBA Academic Policies

Academic Advising and Registration

MBA students should meet with the MBA academic adviser as soon as possible after being accepted into the graduate program. The adviser will develop graduation plans with the student. All course registrations require the MBA adviser's signature.

Veteran Registration

The college meets all of the criteria of Veterans Education under the provisions of Title 38, United States Code, Section 1775. The MBA program has been approved for payment assistance. Veterans pay the cost of tuition, fees, books and supplies directly to the college. They are reimbursed by the Veterans Administration on a monthly basis. Applicants having any questions concerning their veteran's benefits should contact the college's veterans representative in the Registrar's Office.

Graduation Requirements

A candidate for the MBA must complete a minimum of 36 credits, of which 27 must be earned at Lebanon Valley College. There are nine required core courses (27 credits) and any three electives of the student's choice (9 credits) for a total of 36 credits. A candidate must achieve at least a 3.00 cumulative average with a minimum of two C's within the 36 graduate credits to be certified for graduation.

Transfer Credit

A maximum of nine credits (a maximum of six core credits) may be transferred from another

accredited graduate program with the approval of the director of continuing education. No transfer credit shall be accepted if the grade earned at another institution was less than B. Students wishing to transfer credits may be asked to submit course outlines, textbook used, and any reading materials so proper credit may be given.

Concurrent Courses

A student enrolled for the MBA degree may not take courses concurrently at any other educational institution without prior consent of the MBA academic adviser and the registrar.

Grading

Student achievement is graded A (distinguished performance), B (superior work), C (minimum passing grade, but unsatisfactory work), F (course requirements not met). No MBA courses may be taken pass/fail. A cumulative grade point average of 3.00 (4.00 = A) is required for graduation. A maximum of two C grades (C+ or C) is allowed within the 36 graduate credits. Graduate courses are graded plus or minus with the exclusion of A+ and C–

In addition to the above grades, the symbols I and W also are used. I indicates that student work is incomplete (certain required work postponed by the student for substantial reason with the prior consent of the instructor and the registrar), but otherwise satisfactory. The work must be completed within the first eight weeks of the following semester including summer semesters, or the I automatically becomes an F. W indicates withdrawal from a course.

Review Procedure

Every student's academic progress shall be reviewed at the end of each academic period by the MBA academic adviser. Any student whose average falls below 3.00 or who earns a C or F in three or more credit hours may be placed on academic probation. A student on academic probation may be required to retake courses or correct other academic deficiencies and must achieve a 3.00 cumulative average within two semesters of being placed on probation. A student may repeat a maximum of two graduate courses with any given course being repeated only once. Students who fail to correct deficiencies may be dropped from the program. A student may appeal any decision of the director of continuing education to the MBA Operations Committee.

Course Withdrawal and Tuition Refund

Any student who withdraws from courses for which he or she is registered must notify the director of continuing education and the registrar in writing. The effective date of withdrawal is the date on which the student notifies these offices. Failure to give notice of withdrawal will result in a grade of F.

Part-time and continuing education students should consult the refund schedule published by the Continuing Education Office.

A student who is absent from college because of sickness or any other reason and who retains his place in class pays in full during his or her absence.

Time Restriction

The maximum time for completion of the MBA program is seven years from the date of the admission letter. Students who have not earned the graduate degree during this period shall have their academic standing reviewed and may be asked to meet additional requirements in order to graduate.

Academic Dishonesty

Students are expected to uphold the principles of academic honesty. Academic dishonesty shall not be tolerated.

For the first academic dishonesty offense, failure in the course is mandatory, and the faculty member is required to inform the director of continuing education in writing. A letter of warning shall be sent to the student by the director of continuing education explaining the consequences and the right of appeal.

For the second offense, failure in the course and expulsion from the MBA program and college are mandatory and without appeal.

Address Changes

Any change of address must be reported to the Continuing Education Office as soon as possible. A forwarding address should also be given to the Postal Service.

Privacy of Student Records

In accordance with the Family Educational Rights and Privacy Act of 1974 (P.L. 39-380) Lebanon Valley College releases no student education records without written consent and request of the student or as prescribed by the law. Each student has access to his or her education records with exclusions only as specified by the law.

Financial Aid

Students may participate in the Stafford Loan Program, a low, simple-interest loan that is available from most lending institutions. The interest on the loan is subsidized by the federal government while the student is attending college, and payments do not become due until six months after graduation or enrollment as less than a half-time student.



The MBA Program is an interdisciplinary program offered at the Annville campus and the Lancaster Center.

Graduate students should contact the Financial Aid Office at 717-867-6181 to discuss alternative financial aid programs.

Employee Tuition Reimbursement

Students are encouraged to inquire about tuition remission programs at their places of employment. Most employers of current students provide education subsidies of 50-100% of tuition. Students must pay 100% of tuition costs plus comprehensive fee at the time of registration.

Withdrawal from Program and College and Readmission

To withdraw from Lebanon Valley College, an MBA student must complete an official withdrawal form obtained from the MBA academic adviser. To apply for readmission, an MBA student must have the written approval of the director of continuing education.

GRADUATE DEGREE REQUIREMENTS AND COURSE DESCRIPTIONS

Degree: MBA

Requirements:

Undergraduate Core (Common body of knowledge): ACT 151 or 161, ACT 152 or 162; ECN 110, 120; MAS 111 or 150 or 160 or 161, 170 or 270; MGT 222, 233 or CSC 170, 330, 340, 361, 460.

Graduate Core: MGT 800, MGT 805, PSY 810, MGT 815, MGT 820, ENG 825, PHL 830, LSP 835, MGT 895 (27 credits) and three of the following MGT 850, MGT 855, MGT 860, ECN 865, MGT 870, ACT 875, MGT 880, ECN 885 (9 credits). Total of 36 credits.

MBA Courses

ACT 775. Accounting and Financial Applications. A practical look at the financial and managerial areas of accounting. Emphasis will be placed on the four basic financial statements, analytical analysis, cost control and budgeting. In addition, case studies and use of current publications, such as *The Wall Street Journal*, will be stressed. Prerequisite: this course is only for MBA students and combines the current six credit accounting course prerequisite into a single course for the graduate program. 3 credits.

MGT 800. Quantitative Analysis. A survey of management science. Topics include linear programming, transportation and assignment problems, decision and network analysis, stochastic processes, queuing, and simulation. Includes an introduction to appropriate computer software. 3 credits.

MGT 805. Financial Policy. A quantitative approach to managerial problems of long term financing, asset management, dividend policy, and ethics in the firm and marketplace. Emphasis placed on the application of experience to class discussion based on the use of *The Wall Street Journal*. Required presentation of a current topic. 3 credits.

PSY 810. Organizational Behavior. Systematic presentation of theory and research in areas of organizational behavior; including motivation, group dynamics, leadership, decision-making, organization-change, career planning, and communication. 3 credits.

MGT 815. Marketing Management. Seminar focusing on issues arising from the interplay between marketing and society. Examples include ethics of selling, advertising, marketing research and the social responsibility of marketers. Prerequisite: ENG 825 strongly recommended. 3 credits.

MGT 820. Production and Service Management. Systems approaches to management of production and service organizations. Topics include design and control of operations, operations strategy, product and process planning, quality management, human resources, scheduling and control, and materials management. Emphasis is on the priority/capacity organizational concepts, the strategy underlying operations and related MS/OR tools and techniques. Prerequisite: MGT 800. 3 credits.

ENG 825. Executive Communications. Organizational communication skills, emphasizing writing, speaking and listening techniques. Interpersonal communication. Exploring and increasing communication options on individual, group and organizational levels. 3 credits.

PHL 830. Corporate and Organizational Ethics. The ethical assumptions and implications of corporate and organizational policies and practices. Intensive readings in the literature of both theoretical and applied ethics. Case study analyses. Topics include: corporate and organizational social and political responsibility, ethics and business, ethics and organizational life, and governmental relations. Prerequisite: ENG 825 and LSP 835 or PSY 810. 3 credits.

LSP 835. Executive Leadership. Theories and concepts of leadership. Examination of the forces in the leader–follower interaction. Analysis of the skills, behaviors, attitudes, and values of effective and ethical leaders and followers. Application of concepts, information, and experience to case studies. 3 credits.

MGT 850. Human Resource Management. A survey of personnel management activities in organizations including exploration of recent developments in the field of human resource management. Topics include human resource planning, recruitment, selection, training, equal employment opportunity, performance appraisal, discipline, career planning, compensation, safety and health. Instruction method includes case study, readings and classroom lecture. Prerequisite: ENG 825, PSY 810 recommended. 3 credits.

MGT 855. Legal Environment of Business. Legal concepts and principles important to business decision making including employment law, labor–management relations and relevant legislation, tax consequences of business transactions, government regulation, contract law and application of the Uniform Commercial Code to business transactions. Case study, readings and classroom lecture. Prerequisite: ENG 825, PHL 830 recommended. 3 credits.

MGT 860. International Business Management. Theories, concepts, practices and techniques of conducting business in foreign countries. The strategic issues, the operational practices, and the governmental relations of multinational companies are analyzed through use of case study, lecture and speakers. Topics include: economic, political and cultural integration; trade restrictions and barriers; overseas investment and financing; entry into foreign markets and marketing strategies. 3 credits.

ECN 865. *Entrepreneurship.* Entrepreneurship, intrapreneurship, small business, and acquisitions. Special attention to entrepreneurial behavior, sources of funding, and actual case studies in the development of new enterprises. 3 credits.

MGT 870. *Labor Management Relations.* Labor Management Relations is directed primarily to the understanding of the issues and alternatives arising out of the work place. The course provides both an overview of what has been identified as industrial relations as well as familiarity with the tools used by its practitioners. Also it will review closely some of the more interesting and developing areas of the subject matter. Students will study negotiation, administration, wage/fringe issues and contents of labor agreements. Prerequisite: ENG 825. 3 credits.

ACT 875. *Managerial Accounting.* This course provides students previously exposed to basic financial and managerial accounting principles with an opportunity to study the structure and use accounting systems designed to aid management in controlling costs and profits. The course stresses financial statement analysis, sources and uses of funds analysis, tax implications on managerial decisions, responsibility accounting and the impact of inflation. 3 credits.

MGT 880. *Investments and Portfolio Management.* This course acquaints the student with the tools essential for sound money management. Investment management begins by considering the goals of the investor with respect to risk exposure, tax environment, liquidity needs and appreciation versus income potentials. Strategies will be developed to satisfy these objectives. Mathematical models of portfolio selection to help reduce risk through diversification will be developed. Special attention will be paid to the theories of determinants of asset prices, including the capital-asset pricing model. Prerequisite: MGT 805. 3 credits.

ECN 885. *Managerial Economics.* This course focuses on economic planning and decision-making in the firm. The study of actual problems is provided by means of case analysis and independent study. 3 credits.

MGT 895. *Business Policy.* The strategic management of large business entities, including the formulation and evaluation of missions, strategies, objectives and policies. Historical and current situations are discussed. Cases are widely used and outside research is required. Prerequisite: 24 hours of graduate credit. 3 credits.

DIRECTORY

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John R. Eby, *B.S., M.B.A.; President, Eby & Associates, Business Consultants (1995).*

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Darwin G. Glick, *B.S.; Partner, Glick, Stanilla and Siegel (1993).*

Martin L. Gluntz; *B.S., M.S., Ph.D.; Vice President, Manufacturing and Distribution Services, Hershey International Ltd. (1993).*

Arthur L. Goldberg, Esq., *A.B., LL.B.; Attorney, Goldberg, Katzman and Shipman (1995).*

Elaine G. Hackman, *B.A.; Retired Business Executive (1994).*

Lois G. Johnson, *B.S., M.Ed.; Chairperson, Department of English, Delaware Technical and Community College (1995).*

Gerald D. Kaufman, *A.B., B.D., D.D., Retired Pastor, United Methodist Church (1994).*

John D. Norton III, *A.B., M.A., Ph.D.; Professor of Political Science and Chairperson, Political Science and Economics Department, Lebanon Valley College (1993).*

Kenneth H. Plummer; *Retired President, E.D. Plummer Sons, Inc. (1993).*

Thomas C. Reinhart, *B.S.; President, T.C.R. Packaging, Inc., Albee-Campbell, Inc., and People Seekers (1993).*

John J. Shumaker, *B.A., J.D., Member, Pennsylvania State Senate (1994).*

Morton Spector; *Vice President and Treasurer, D & H Distributing Co. (1995).*

E. Peter Strickler, *B.S.; President, Strickler Insurance Agency, Inc. (1995).*

John A. Synodinos, *B.S., M.S.Ed.; President, Lebanon Valley College.*

Kathryn Seiverling Taylor, *B.A., M.A.; Homemaker (1994).*

Susan E. Verhoek, *B.A., M.A., Ph.D.; Professor of Biology, Lebanon Valley College (1995).*

John A. Walter, *B.S., J.D.; President Judge, Lebanon County Court of Common Pleas (1995).*

Harlan R. Wengert, *B.S., M.B.A., D.Sci.; Chairman, Wengert's Dairy (1993).*

E.D. Williams Jr., *L.H.D.; Private Investor (1993).*

J. Dennis Williams, *B.A., M.Div., D.Min., D.D.; Pastor, United Methodist Church (1994).*

Samuel A. Willman, *B.S., M.Com.; President, Delta Packaging, Inc. (1993).*

Allan F. Wolfe, *B.A., M.A., Ph.D., Professor of Biology, Lebanon Valley College (1994).*

Harry B. Yost, Esq., LL.B., LL.M.; Attorney, Appel & Yost (1994).

Emeriti

William D. Boswell, Esq., Ph.B., LL.B.; Attorney, Boswell Snyder Tintner & Piccola.

William D. Bryson, LL.D.; Retired Executive, Walter W. Moyer Company.

Curvin N. Dellinger, B.S.; President, J.C. Hauer's Sons, Inc.

Dewitt M. Essick, A.B., M.S.; Retired Executive, Armstrong World Industries.

Eugene C. Fish, Esq., B.S., LL.B., J.D.; President, Peerless Industries, Inc.; Chairman of the Board, Eastern Foundry Company; Attorney, Romeika, Fish and Scheckter; Senior Partner, Tax Associates.

Thomas W. Guinivan, A.B., B.D., D.D.; Retired Pastor, United Methodist Church.

Paul E. Horn, A.B., B.D., D.D.; Retired Pastor, United Methodist Church.

Allan W. Mund, LL.D.; Retired Chairman, Ellicott Machine Corporation.

Harold S. Peiffer, A.B., B.D., S.T.M., D.D.; Retired Pastor, United Methodist Church.

Jessie A. Pratt, B.S.; Retired Administrative Assistant, Legal Division, City of Philadelphia.

Ezra H. Ranck, A.B., B.D., D.D.; Retired Pastor, United Methodist Church.

Melvin S. Rife; Retired Executive, St. Regis Paper Company.

F. Allen Rutherford Jr., B.S., LL.D.; Retired Principal, Arthur Young and Company.

Daniel L. Shearer, A.B., B.D., S.T.M.; Retired Pastor, United Methodist Church.

Elizabeth K. Weisburger, B.S., Ph.D., D.Sci.; Retired Chief of Carcinogen Metabolism and Toxicology Branch, National Cancer Institute.

Charles W. Wolfe, B.A., M.Div.; Emeritus Vice President of University Relations, Bucknell University.

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Susan M. Morrison, B.A., M.Div., D.D.; *Resident Bishop of the Philadelphia Area, United Methodist Church.*

Anne B. Sweigart, B.S.; *Chairman of the Board and Chief Executive Officer, Denver and Ephrata Telephone Company.*

ADMINISTRATION

President

John A. Synodinos, 1988–; B.S., *Loyola College*, 1959; M.S.Ed., *Temple University*, 1977.

Howard L. Applegate, 1983–; *Secretary of the College*, 1989–. B.A., *Drew University*, 1957; M.A., *Syracuse University*, 1960; Ph.D., 1966.

Diane E. Wenger, 1989–; *Executive Assistant to the President*, 1990–. B.A., *Lebanon Valley College*, 1992.

General College Officers

Richard F. Charles, 1988–; *Vice President for Advancement*, 1988–. A.B., *Franklin & Marshall College*, 1953.

Deborah R. Fullam, 1982–; *Controller*, 1990–. B.S., *Lebanon Valley College*, 1981; M.B.A., *Philadelphia College of Textiles & Science*, 1988.

Robert E. Hamilton, 1986–; *Vice President for Administration*, 1990–. A.B., *Messiah College*, 1962; M.Ed., *Shippensburg University*, 1966; D.Ed., *The Pennsylvania State University*, 1972.

William J. McGill Jr., 1986–; *Vice President and Dean of the College*, 1986–. A.B., *Trinity College*, 1957; M.A., *Harvard University*, 1958; Ph.D., 1961.

Robert A. Riley, 1976–1978, 1988–; *Executive Director of Computing and Telecommunications*, 1988–. B.S., *Elizabethtown College*, 1976.

Gregory G. Stanson, 1966–; *Vice President and Enrollment and Student Services*, 1991–. B.A., *Lebanon Valley College*, 1963; M.Ed., *University of Toledo*, 1966.

ADMINISTRATIVE OFFICERS

Academic and Student Affairs

William J. McGill, *Vice President and Dean of the College.*

Karen D. Best, 1990–; *Registrar, 1990–. B.A., Dickinson College, 1989.*

Arthur L. Ford, 1965–; *Associate Academic Dean, 1990–. A.B., Lebanon Valley College, 1959; M.A., Bowling Green State University, 1960; Ph.D., 1964.*

Elaine D. Feather, 1989–; *Director of Continuing Education, 1989–. B.S., State University of New York College at Cortland, 1965; M.S., State University of New York College at Brockport, 1973.*

Barbara Jones Denison, 1987–; *Associate Director of Continuing Education, 1992–. B.A., Lebanon Valley College, 1979; M.A. University of York, 1981; Ph.D., Northwestern University, 1985.*

Kathleen L. Williams, 1992–; *Continuing Education Counselor, 1992–; B.A., Albion College, 1979; M.A., Western Michigan University, 1982.*

Mark A. Mentzer, 1992–; *Director of the MBA Program, 1992–. B.A., Franklin & Marshall College, 1979; M.S., University of Delaware, 1981; M.S., Johns Hopkins University, 1983; Ph.D., University of Delaware, 1986.*

Dale J. Erskine, 1983–; *Director, Youth Scholars Institute, 1985–. B.A., University of Maine at Portland, 1974; M.A., State University of New York at Buffalo, 1976; Ph.D., University of Oklahoma, 1981.*

Suzanne Caldwell Riehl, 1982–; *Director of Special Music Programs, 1989–; B.A., Lebanon Valley College, 1979; M.M., Westminster Choir College, 1982.*

Leon E. Markowicz, 1971–; *Director of Academic Support Programs, 1990–. A.B., Duquesne University, 1964; M.A., University of Pennsylvania, 1968; Ph.D., 1972.*

Daniel B. McKinley, 1988–; *Director of Leadership and Student Development Programs, 1990–. B.S., United States Coast Guard Academy, 1968; M.A.L.S., Wesleyan University, 1973; M.A., University of Maryland, 1982.*

P. Robert Paustian, 1991–; *Librarian, 1991–. B.A., University of Missouri, 1971; M.A., University of Kansas, 1975; M.A., University of Missouri, 1979.*

Alice S. Diehl, 1966–; *Technical Processes Librarian*, 1966–. A.B., Smith College, 1956; B.S., Carnegie Institute of Technology, 1957; M.L.S., University of Pittsburgh, 1966.

Donna L. Miller, 1986–; *Readers' Services Librarian*, 1986–. B.S., Millersville University, 1984; M.L.S., Drexel University, 1986.

D. Darrell Woomer, 1992–; *Chaplain*, 1992–. B.A., Juniata College, 1964; M.Div., Pittsburgh Theological Seminary, 1969; Th.M., Duesquesne University, 1972; M.A., 1986.

Thomas H. Smith, 1988–; *Adjunct Catholic Chaplain*, 1988–. B.A., Saint Charles Seminary, 1953.

Enrollment and Student Services

Gregory G. Stanson, *Vice President for Enrollment and Student Services*.

William J. Brown Jr., 1980–; *Director of Admission*, 1991–. B.A., Lebanon Valley College, 1979; M.B.A., Philadelphia College of Textiles and Science, 1988.

Susan K. Borelli, 1990–; *Assistant Director of Admission*, 1992–. B.A., Albright College, 1989.

Mark A. Brezitski, 1986–; *Admission Counselor*, 1989–. B.A., Shippensburg University, 1985.

Timothy M. Ebersole, 1986–; *Admission Counselor*, 1990–. B.S., Shippensburg University, 1983.

Ronald K. Good, 1983–; *Associate Director of Admission*, 1991–. B.S. in Ed., Millersville University, 1959; M.Ed., 1966.

Heather L. Keeney, 1991–; *Admission and Financial Aid Counselor*, 1992–. B.S., University of Delaware, 1989.

Marcella Lightfoot, 1991–; *Admission Counselor*, 1991–. B.A. University of Pittsburgh, 1990.

Patricia A. Flannery, 1991–; *Financial Aid Counselor*, 1991–. B.A., Bucknell University, 1986.

Lynell R. Shore, 1990–; *Director of Financial Aid*, 1992–. B.S., Albright College, 1990.

David C. Evans, 1981–; *Director of Career Planning and Placement*, 1989–. B.A., Slippery Rock University, 1969; M.Ed., Rutgers University, 1970.

Russell J. Owens, 1988–; *Director of E.H. Arnold Sports Center, 1988–. B.S., Lebanon Valley College, 1960.*

Rosemary Yuhas, 1973–; *Dean of Student Services, 1991–. B.S., Lock Haven University, 1966; M.Ed., West Chester University, 1970.*

Jennifer M. Dawson, 1991–; *Director of Student Activities 1991–. B.S., Kansas State University, 1989; M.S., Shippensburg University, 1991.*

Laura L. Etzweiler, 1990–; *Residence Hall Director, 1990–. B.S., Delaware Valley College, 1989.*

Donald Friday, 1990–; *Residence Hall Director, 1990–. B.S., Lebanon Valley College, 1990.*

John T. Hower, 1988–; *Counseling Psychologist, 1988–. B.A., Wheaton College, 1970; M.A., Rosemead School of Psychology, 1974; Ph.D., 1977.*

Lynette Ruch, 1991–; *Counseling Psychologist, 1991–. B.S. Kean College of New Jersey, 1974; M.S., Millersville University, 1981; Ph.D., University of Pennsylvania, 1992.*

Juliana Z. Wolfe, 1975–1978; 1979–; *Director of Health Center and Head Nurse, 1979–. R.N., Diploma, St. Joseph's Hospital, 1963.*

Valerie Chabitnoy, 1992–; *Staff Nurse, 1992–. R.N., Diploma, St. Joseph's Hospital, 1978.*

Arlene Doyle, 1992–; *Staff Nurse, 1992–. R.N., Diploma, St. Joseph's Hospital, 1961.*

Robert F. Early, 1971–; *College Physician, 1971–. B.S., Lebanon Valley College, 1949; M.D., Thomas Jefferson University, 1952.*

Russell L. Gingrich, 1971–; *College Physician, 1971–. B.S., Lebanon Valley College, 1947; M.D., Thomas Jefferson University, 1951.*

Robert M. Kline, 1970–; *College Physician, 1970–. B.S., Lebanon Valley College, 1950; M.D., Thomas Jefferson University, 1955; B.A., Lebanon Valley College, 1971.*

Advancement

Richard F. Charles, *Vice President for Advancement.*

Ellen H. Arnold, 1988–; *Director of Development, 1991–. B.A., Bucknell University, 1964.*

C. Paul Brubaker Jr., 1989–; *Director of Planned Giving. B.S., Franklin and Marshall College, 1952; M.B.A., Wharton Graduate School, University of Pennsylvania, 1955.*

John B. Deamer Jr., 1986–; *Director of Sports Information and Athletics Development*, 1992–. B.A., LaSalle University, 1985.

Shanna P. Gemmill, 1992–; *Assistant Director of Annual Giving*, 1992–. B.S., Bucknell University, 1992.

Monica E. Kline, 1988–; *Director of Alumni Programs*, 1990–. B.A., Lebanon Valley College, 1988.

Carolyn A. Lauver, 1992–; *Director of Annual Giving*, 1992–. B.Mus., College Misericordia, 1963.

Jane Marie Paluda, 1990–; *Director of Publications*, 1990–. B.A., Moravian College, 1980.

Judy Pehrson, 1989–; *Director of College Relations*, 1989–. B.A., University of Michigan, 1968; M.A., 1972.

Mary Beth Strehl, 1990–; *Communications Associate*, 1992–. B.A., Messiah College, 1990.

Financial Affairs

Deborah R. Fullam, *Controller and Treasurer*.

Michael J. Gallager, 1990–; *Assistant Controller*, 1990–. B.S., Lebanon Valley College, 1983.

Dana K. Leshner, 1990–; *Assistant, Business Services*, 1990–. B.A., Millersville University, 1977.

Computing and Telecommunications

Robert A. Riley, *Executive Director of Computing and Telecommunications*.

Robert J. Dillane, 1985–; *Director of Administrative Computing*, 1986–. B.S., Lebanon Valley College, 1977.

T. Russell Embich Jr., 1992–; *Network and Systems Manager*, 1992–. A.S., Valley Forge Military Junior College, 1989; B.S., Messiah College, 1992.

Andrew S. Greene, 1990–; *Assistant Director, Media Services*, 1990–. B.S., Kutztown University, 1990.

Keeta K. Cole, 1992–; *Assistant to the Director of Administrative Computing*, 1992–. B.S., Lebanon Valley College, 1970.

Walter L. Smith, 1961–1969; 1971–; *Director of Special Services*, 1990–. B.S., Lebanon Valley College, 1961; M.S. in Ed., Temple University, 1967.

John J. Uhl, 1980–; *Director of Media Services*, 1980–. B.S., Lebanon Valley College, 1979.

Michael C. Zeigler, 1990–; *Director of User Services and Computer Workshops*, 1990–. B.S., The Pennsylvania State University, 1979.

Administrative Affairs

Robert E. Hamilton, *Vice President for Administration*.

Robert E. Harnish, 1967–; *Manager of the College Store*, 1967–. B.A., Randolph Macon College, 1966.

George F. Lovell Jr., 1988–; *Superintendent of Buildings and Grounds*, 1988.

Harold L. Fessler, 1984–; *Director of Maintenance*, 1984–.

Margaret A. Lahr, 1988–; *Director of Housekeeping*, 1988–.

Kevin R. Yeiser, 1982–; *Director of Grounds*, 1982–.

Louis A. Sorrentino, 1971–; *Director of Athletics*, 1981–. B.A., Lebanon Valley College, 1954; M.A., Bucknell University, 1961.

James P. Monos, 1986–; *Assistant Director of Athletics for Recruitment and Retention*, 1992–. B.S., Shippensburg University, 1972; M.Ed., Western Maryland College, 1978.

Kathleen Tierney, 1983–; *Assistant Coordinator of Athletics, Director of Summer Sports Camps*, 1988–. B.S., State University of New York at Brockport, 1979.

Allen R. Yingst, 1989–; *Director of Security and Safety*, 1990–.

Athletics

Louis A. Sorrentino, *Director of Athletics*, 1971–; *Assistant Men's Basketball Coach*, 1986–; *Golf Coach*, 1989–.

Timothy M. Ebersole, 1986–; *Baseball Coach*, 1990–.

Patrick J. Flannery, 1989–; *Men's Basketball Coach; Assistant Baseball Coach*, 1989–; B.A., Bucknell University, 1980; M.S., 1983.

Lawrence M. Larthey, 1988–; *Wrestling Coach*, 1988–. B.S., *Lebanon Valley College*, 1972.

James P. Monos Jr., 1986–; *Football Coach*, 1986–.

Kathleen M. Nelson, 1990–; *Women's Basketball Coach*, *Women's Softball Coach*, 1990–. B.S., *Edinboro University*, 1979; M.A., *Central Michigan University*, 1987.

Russell J. Owens, 1988–; *Men's and Women's Swimming Coach*, 1989–.

Wayne Perry, 1987–; *Women's Volleyball Coach*, 1988–. B.S., *Lebanon Valley College*, 1978.

O. Kent Reed, 1971–; *Men's Track and Field Coach*, *Men's and Women's Cross-Country Coach*, 1971–. B.S., *Otterbein College*, 1956; M.A., *Eastern Kentucky University*, 1970.

Harry A. Shirk Jr., 1987–; *Soccer Coach*, 1987–.

James E. Stark, 1986–; *Athletic Trainer*, 1986–. B.S., *Lock Haven University*, 1983; M.Ed., *Shippensburg University*, 1986.

Kathleen M. Tierney, 1983–; *Assistant Director of Athletics*, 1988–; *Field Hockey Coach*, 1983–.

FACULTY

Active

Howard L. Applegate, 1983–; *Associate Professor of History and American Studies. B.A., Drew University, 1957; M.A., Syracuse University, 1960; Ph.D., 1966.*

Sharon Darmofall Arnold, 1986–; *Associate Professor of Sociology. B.A., University of Akron, 1964; M.A., 1967. (On leave, Fall 1992)*

Susan Atkinson, 1987–; *Associate Professor of Education. B.S., Shippensburg University, 1972; M.Ed., (Elementary Education) 1973; M.Ed., (Special Education) 1979; D.Ed., Temple University, 1987.*

Philip A. Billings, 1970–; *Professor of English. Chairperson of Department of English. B.A., Heidelberg College, 1965; M.A., Michigan State University, 1967; Ph.D., 1974.*

Marie Bongiovanni, 1990–; *Assistant Professor of English. B.A., Temple University, 1977; M.B.A., Drexel University, 1982.*

Donald C. Boone, 1988–; *Assistant Professor of Hotel Management. Acting Chairperson of the Department of Management, fall 1992. B.A., Michigan State University, 1964; M.B.A., 1966.*

James H. Broussard, 1983–; *Professor of History. Chairperson of the Department of History and American Studies. A.B., Harvard University, 1963; M.A., Duke University, 1977; Ph.D., 1968.*

Donald Eugene Brown, 1983–; *Professor of Political Science. B.S., Western Illinois University, 1969; M.A., State University of New York at Binghamton, 1973; Ph.D., 1982.*

Donald E. Byrne Jr., 1971–; *Professor of Religion. Director of the American Studies Program. B.A., St. Paul Seminary, 1963; M.A., Marquette University, 1966; Ph.D., Duke University, 1972.*

Joseph H. Clapper, 1992–; *Assistant Professor of Education. B.S., Shippensburg University, 1978; M.Ed., 1984; Ed.D., The Pennsylvania State University, 1992.*

Sharon F. Clark, 1986–; *Associate Professor of Management. Chairperson of the Department of Management. B.A., University of Richmond, 1969; J.D., 1971. (On leave, Fall 1992)*

Richard D. Cornelius, 1985–; *Professor of Chemistry. B.A., Carleton College, 1969; Ph.D., University of Iowa, 1974. (On leave, 1992–1993)*

Salvatore Cullari, 1986–; *Associate Professor of Psychology. B.A., Kean College, 1974; M.A., Western Michigan University, 1976; Ph.D., 1981.*

George D. Curfman, 1961–; *Professor of Music. B.S., Lebanon Valley College, 1953; M.M., University of Michigan, 1957; D.Ed., The Pennsylvania State University, 1971.*

Donald B. Dahlberg, 1980–; *Professor of Chemistry. B.S., University of Washington, 1967; M.S., Cornell University, 1969; Ph.D., 1971.*

Michael A. Day, 1987–; *Associate Professor of Physics. B.S., University of Idaho, 1969; M.A., 1975, Ph.D., 1977, University of Nebraska (Philosophy). M.S., 1978, Ph.D., 1983, University of Nebraska (Physics).*

Phylis Dryden, 1987–; *Assistant Professor of English. B.A., Atlantic Union College, 1976; M.A., State University of New York at Albany, 1985; Ph.D., 1988.*

Scott H. Eggert, 1983–; *Associate Professor of Music. B.F.A., University of Wisconsin (Milwaukee), 1971; M.A., University of Chicago, 1974; D.M.A., University of Kansas, 1982.*

Dale J. Erskine, 1983–; *Associate Professor of Biology. Director of the Youth Scholars Institute. B.A., University of Maine at Portland, 1974; M.A., State University of New York at Buffalo, 1976; Ph.D., University of Oklahoma, 1981.*

Arthur L. Ford, 1965–; *Professor of English. A.B., Lebanon Valley College, 1959; M.A., Bowling Green State University, 1960; Ph.D., 1964.*

Michael D. Fry, 1983–; *Associate Professor of Mathematical Sciences. B.A., Immaculate Heart College, 1975; Ph.D., University of Illinois, 1980. (On leave, Spring 1993)*

Michael A. Grella, 1980–; *Professor of Education. Chairperson of the Department of Education. B.A., St. Mary's Seminary and University, 1958; M.A., West Virginia University, 1970; Ed.D., 1974.*

Gary Grieve-Carlson, 1990–; *Assistant Professor of English. B.A., Bates College, 1977; M.A., State University of New York at Binghamton, 1980; Ph.D., Boston University, 1988.*

Thomas E. Hagan Jr., 1992–; *Assistant Professor of Chemistry. B.S., Villanova University, 1985; Ph.D., University of Delaware, 1992.*

Klement M. Hambourg, 1982–; *Associate Professor of Music. A.T.C.M., Royal Conservatory of Music, 1946; L.R.A.M., Royal Academy of Music, 1962; A.R.C.M., Royal College of Music, 1962; L.T.C.L., Trinity College of Music (London), 1965; Fellow, 1966; D.M.A., University of Oregon, 1977.*

Carolyn R. Hanes, 1977–; *Professor of Sociology and Social Work. Chairperson of the*

Department of Sociology and Social Work. B.A., Central Michigan University, 1969; M.A., University of New Hampshire, 1973; Ph.D., 1976.

Bryan V. Hearsey, 1971–; Professor of Mathematical Sciences. B.A., Western Washington State College, 1964; M.A., Washington State University, 1966; Ph.D., 1968.

Robert H. Hearson, 1986–; Associate Professor of Music. B. Music, University of Iowa, 1964; M.A., 1965; Ed.D., University of Illinois, 1983.

John H. Heffner, 1972–; Professor of Philosophy. Chairperson of the Department of Religion and Philosophy. B.S., Lebanon Valley College, 1968; B.A., 1987; A.M., Boston University, 1971; Ph.D., 1976.

Paul A. Heise, 1991–; Assistant Professor of Economics. B.S.F.S., Georgetown University, 1958; M.A., 1963; M.P.A., Harvard University, 1972; Ph.D., New School for Social Research, 1991.

Jeanne C. Hey, 1989–; Assistant Professor of Economics. B.A., Bucknell University, 1954; M.B.A., Lehigh University, 1982; Ph.D., 1990.

Anne R. Higginbottom, 1990–; Assistant Professor of English. B.A., Syracuse University, 1970; M.A., State University of New York at Binghamton, 1983.

Barry L. Hurst, 1982–; Associate Professor of Physics. Chairperson of the Department of Physics. B.S., Juniata College, 1972; Ph.D., University of Delaware, 1982.

Diane M. Iglesias, 1976–; Professor of Spanish. Chairperson of the Department of Foreign Languages. B.A., Queens College, 1971; M.A., 1974; Ph.D., City University of New York, 1979.

Richard A. Iskowit, 1969–; Associate Professor of Art. Chairperson of the Department of Art. B.F.A., Kent State University, 1965; M.F.A., 1967.

Ordella W. Jennings, 1992–; Assistant Professor of Accounting. B.A., Washington College, 1976; M.B.A., Rutgers University, 1979.

Richard A. Joyce, 1966–; Associate Professor of History. A.B., Yale University, 1952; M.A., San Francisco State College, 1963.

John P. Kearney, 1971–; Professor of English. B.A., St. Benedict's College, 1962; M.A., University of Michigan, 1963; Ph.D., University of Wisconsin, 1968.

Edward H. Krebs, 1976–80; 1989–; Assistant Professor of Economics. B.S., The Pennsylvania State University, 1965; M.S., University of Massachusetts, 1967; Ph.D. Michigan State University, 1970. (On leave, 1991–1993.)

Leonie Lang-Hambourg, 1992–; *Instructor of German. Diplom, Muenchener Dolmetscher-Schule; M.A., University of Oregon, 1976.*

David I. Lasky, 1974–; *Professor of Psychology. Chairperson of the Department of Psychology. A.B., Temple University, 1956; M.A., 1958; Ph.D., 1961.*

Robert W. Leonard, 1988–; *Assistant Professor of Management. B.A., Ohio University, 1977; M.A., St. Francis School of Industrial Relations, 1978, M.B.A., The Ohio State University, 1986.*

Thomas Jyh-cheng Liu, 1990–; *Assistant Professor of Mathematical Sciences. B.S., Tatung Institute of Technology, 1979; M.S. in Chemical Engineering, University of Illinois at Chicago, 1983; M.S. in Mathematics, 1985; Ph.D., 1988.*

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Program Director, Judith K. Clark, M.Ed., M.T. (ASCP)

Jersey Shore Medical Center: Medical Director, Martin Krummerman, M.D.;
Program Director, Perla Simmons, M.P.A., M.T. (ASCP), S.H.

Lancaster General Hospital: Director, Gerald Fahs, M.D.;
Program Director, Nadine Gladfelter, M.S., M.T. (ASCP)

Polyclinic Medical Center of Harrisburg: Director, Julian Potok, D.O.;
Program Director, Janice M. Fogelman, M.Ed., M.T. (ASCP)

Reading Hospital and Medical Center: Director, I. Donald Stuard, M.D.;
Program Director, Sharon Strauss, CLS (NCA) M.T. (ASCP)

Sacred Heart Hospital: Director, Francis V. Kostelnik, M.D.;
Program Director, Sandra A. Neiman, M.T. (ASCP), CLS.

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Linda L. Summers	<i>Registrar's Office</i>
Bernice K. Teahl	<i>Art, Chemistry and Physics Departments</i>
Bonnie C. Tenney	<i>Buildings and Grounds Office</i>

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The Lindback Awards for distinguished teaching are supported by grants from the Christian R. and Mary F. Lindback Foundation. The Lindback Award recipients, who must be full-time members of the Lebanon Valley College faculty, are selected by the president of the college after appropriate consultation with alumni, students, faculty and staff.

Previous Awardees

1985	Leon E. Markowicz, Ph.D., Professor of English
1986	Carolyn R. Hanes, Ph.D., Professor of Sociology and Social Work and Leadership Studies
1987	Donald E. Byrne, Jr., Ph.D., Professor of Religion
1987	Mark A. Townsend, Ed.D., Assistant Professor of Mathematical Sciences
1988	William H. Fairlamb, Mus.B., Professor of Music
1989	Paul L. Wolf, Ph.D., Professor of Biology
1990	Owen A. Moe Jr., Ph.D., Professor of Chemistry
1991	Scott H. Eggert, D.M.A., Associate Professor of Music
1992	Gary Grieve-Carlson, Ph.D., Assistant Professor of English

THE NEVELYN J. KNISLEY AWARD FOR INSPIRATIONAL TEACHING

In 1988, Lebanon Valley College created an award for part-time and adjunct members of the college faculty similar to the philosophy of the Lindback Award. The first awardee was Nevelyn J. Knisley. After the presentation of the first award, the president of the college named this series of awards for Mrs. Knisley in recognition for her twenty-four years of inspired teaching in music.

Previous Awardees

1988	Nevelyn J. Knisley, M.F.A., Adjunct Associate Professor of Music
1989	Carolyn B. Scott, B.A., Adjunct Instructor in French
1990	Michael J. Asken, Ph.D., Adjunct Associate Professor of Psychology
1991	Joanne Cole Rosen, B.A., Adjunct Assistant Professor of Chemistry
1992	Kevin B. Pry, Ph.D., Adjunct Assistant Professor of English

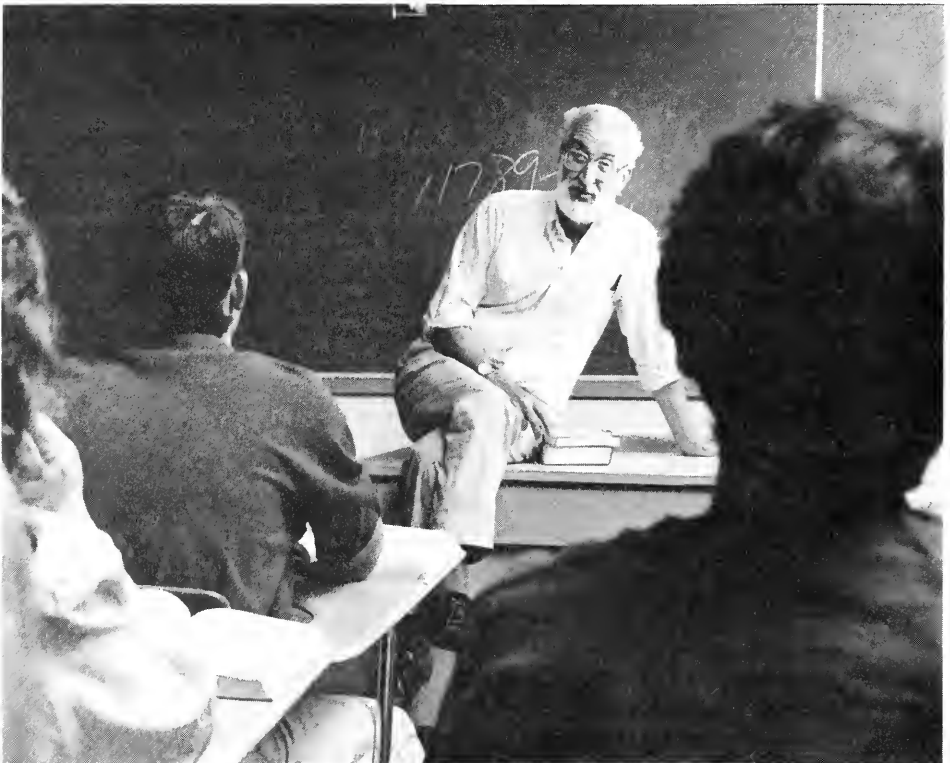
ACCREDITATION

Lebanon Valley College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools.

Lebanon Valley College is also accredited by the Pennsylvania Department of Education, the National Association of Schools of Music and the American Chemical Society.

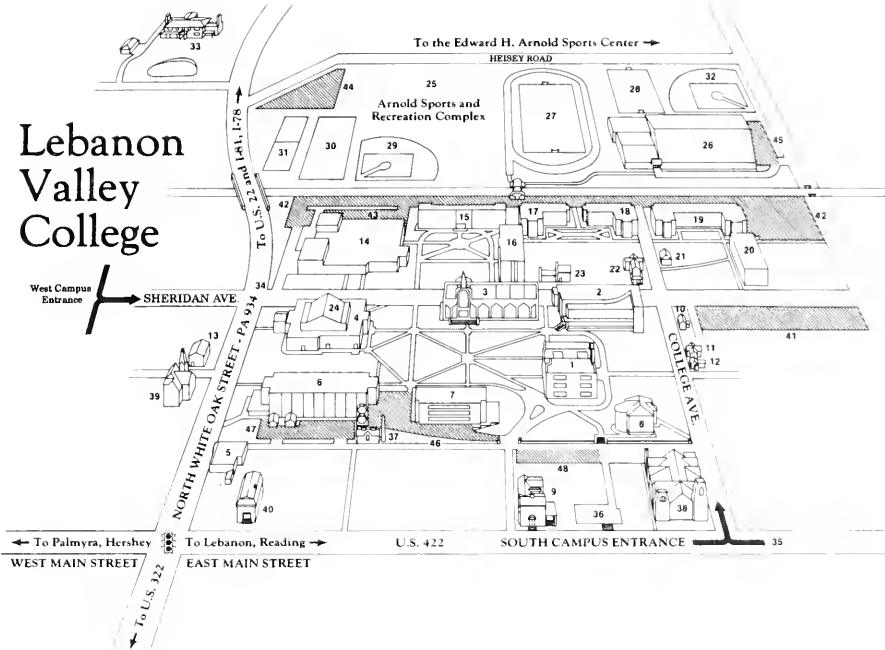
Lebanon Valley College is on the approved list of the Regents of the State University of New York and of the American Association of University Women.

Lebanon Valley College is a member of the following: American Association of Colleges; National Association of Independent Colleges and Universities; Pennsylvania Foundation for Independent Colleges; College Entrance Examination Board; College Scholarship Service; Council of Independent Colleges; National Collegiate Athletic Association; Middle Atlantic States Collegiate Athletic Conference; Penn-Mar Athletic Conference; Central Pennsylvania Field Hockey Association; Eastern College Athletic Conference.



Most classes are small, offering one-on-one contact between instructor and student.

CAMPUS MAP



ACADEMIC AND

ADMINISTRATIVE QUADRANGLE

1. **Humanities Center and Administrative Offices:** Academic Departments: English Department, Foreign Languages Department, History and American Studies Department, Political Science and Economics Department, Religion and Philosophy Department, Sociology and Social Work Department. Administrative Offices: Business Office, Controller and Treasurer, Continuing Education Office, Copy Center, Mail Room, Media Services, President, Registrar, Secretary of the College, Security and Safety, Telephone Services, Vice President and Dean of the College and Vice President for Administration
2. **Blair Music Center:** Music Department, Education Department, Lutz Recital Hall, and Sound Recording Technology Studios
3. **Miller Chapel:** Chaplain, Student Activities Offices
4. **Lynch Memorial Hall:** Intercollegiate Athletics, Emmett C. Roop Management Department Wing, William H. Lodge Mathematical Sciences Center, Computer Services Department
5. **Art Studios**
6. **Garber Sciences Center:** Biology Department, Chemistry Department, Physics Department, Psychology Department
7. **Gossard Library**
8. **Carnegie Building:** Admissions and Financial Aid Office
9. **Laughlin Hall:** Advancement Offices: Alumni Programs, Annual Giving, College Relations, Development, Planned Giving, Publications, Sports Information
10. **Wagner House:** Student Services Offices
11. **112 College Avenue**
12. **104 College Avenue:** Leadership Studies and Academic Support Office
13. **Fencil Building:** Lebanon Valley Child Care and Learning Center

RESIDENTIAL QUADRANGLE

14. **Allan W. Mund College Center:** Conference Services Office, Dining Halls, Little Theatre, Snack Shop, Student Activities Offices, Career Planning and Placement Office, WLVC
15. **Mary Capp Green Residence Hall**
16. **Vickroy Residence Hall**
17. **Keister Residence Hall**
18. **Hammond Residence Hall**
19. **Funkhouser Residence Hall**
20. **Silver Residence Hall**
21. **North College Residence Hall**
22. **Shroyer Health Center**
23. **Centre Residence Hall**
24. **Lynch Gymnasium**

ARNOLD SPORTS AND RECREATION COMPLEX

25. **Arnold Sports and Recreation Complex**
26. **Edward H. Arnold Sports Center:** Indoor Track, Pool, Recreational Facilities, Physical Education
27. **Henry and Gladys Arnold Football Stadium and All-weather Track**
28. **Soccer Field**
29. **Baseball Field**
30. **Field Hockey Field**
31. **Tennis Courts**
32. **Softball Field**

OTHER FACILITIES

33. **Kreiderheim:** President's Residence
34. **West Campus Entrance**
35. **South Campus Entrance**
36. **Bollinger Plaza**
37. **Heating Plant**
38. **Annville United Methodist Church**
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* All information is correct as of August 1, 1992

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